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ABSTRACT

This directory abstracts more than 180 projects funded during Fiscal Year 1996 by the U.S. Department of Education, Office of Special Education Programs, Research to Practice Division. Projects developed under four major program areas are described: (1) research; (2) technology, educational media, and materials; (3) serious emotional disturbance; and (4) special studies. The projects are arranged into 11 topical sections: assessment; cultural differences; infants, young children, and families; instructional effectiveness, models, and learning; policy and program evaluation; restructuring and service delivery issues; secondary education and postsecondary outcomes; serious emotional disturbance and behavioral disorders; severe disabilities; teacher training, retention, and supply and demand; and technology and software. The projects are arranged alphabetically within each section by Principal Investigator. Information provided includes project title; grant number; beginning and ending dates; principal investigators' name, address, and telephone number; and an abstract of the project that describes its purpose, method, and products. In the Products section of the abstract, information is provided (when available) about materials the project has submitted to ERIC (Educational Resources Information Center) for inclusion in its database. Five indexes provide access to project information by principal investigator, competition number, institution, state, and subject. (DB)

ED 404 807

INNOVATION AND DEVELOPMENT IN SPECIAL EDUCATION

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DIRECTORY OF CURRENT PROJECTS

1995 EDITION

EC 305325

U.S. DEPARTMENT OF EDUCATION
OFFICE OF SPECIAL EDUCATION PROGRAMS
DIVISION OF INNOVATION AND DEVELOPMENT

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Research in the Education of
Individuals with Disabilities

Innovation and Development in Special Education
Directory of Current Projects
1997 Edition

Judi DeCarme/Raymond Orkwis
Editors

U. S. Department of Education
Office of Special Education Programs
Research to Practice Division

Prepared by:
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ERIC Clearinghouse on Disabilities and Gifted Education
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PREFACE

To be meaningful, research must respond to the needs of the community it is meant to serve, and the focus of research must evolve as that community's priorities change. The research and development activities of the Research to Practice Division and its predecessor, the Division of Innovation and Development, have taken up this challenge by supporting closer relationships between research and practice, exchanging findings with broader audiences, encouraging the development of projects in key areas, and providing direct service to researchers and users.

The Division has helped pioneer many common practices found in classrooms today. For example, the Division was one of the first agencies to fund research on cooperative learning and on the effects of early childhood intervention. The Division also has funded ground-breaking and influential work in reciprocal teaching, direct instruction, peer tutoring, learning strategies, and behavioral interventions that has led to dozens of strategies with greater success and enhanced efficiencies for children and youth with disabilities. In fact, the Division's R&D efforts have touched on virtually every aspect of teaching and learning, from exploring the influences of parents and families on learning to teacher planning; from psychosocial development to outcomes-based learning; and from understanding how to best use technology in classrooms to exploring how students use their own language and communication systems to learn. The Division has taken on many of the biggest research challenges facing education today, with results that continue to reshape how educators, policy makers, and the public think about teaching and learning.

The Research to Practice Division administers the 14 discretionary programs authorized by the Individuals with Disabilities Education Act (IDEA). This directory presents information about projects administered under four of those programs, funded at over $30 million in fiscal year 1996. These include:

> **Research** ($14 million) Authorized by Part E of IDEA, the *Research in Education of Individuals with Disabilities Program* provides support to advance and improve the knowledge base and improve the practice of professionals, parents, and others providing early intervention, special education, and related services -- including professionals in regular education environments -- to provide children with disabilities effective instruction and enable these children to learn successfully.
>
> **Technology, Educational Media, and Materials** ($10 million) Authorized by Part G of IDEA, the *Technology, Educational Media, and Materials for Individuals with Disabilities Program* supports projects and centers for advancing the availability, quality, use, and effectiveness of technology, educational media, and materials in the education of children and youth with disabilities and the provision of related services and early intervention services to infants and toddlers with disabilities.

Serious Emotional Disturbance ($4.1 million) Authorized by Part C of IDEA, the *Program for Children and Youth with Serious Emotional Disturbance* supports projects designed to improve special education and related services to children and youth with serious emotional disturbance. Types of projects that may be supported under the program include, but are not limited to, research, development, and demonstration projects. Funds may also be used to develop and demonstrate approaches to assist and prevent children with emotional and behavioral problems from developing serious emotional disturbance.

Special Studies ($3.8 million)Authorized by Part B of IDEA, the *Special Studies Program* supports the collection of data, studies, investigations, and evaluations to assess the impact and effectiveness of programs and projects assisted under IDEA.

Over the last decade, the Division's support of knowledge production, access, and use has moved toward an agenda that focuses on results -- achieving better outcomes for children and youth with disabilities. This transformation was motivated by a leadership commitment to assure that research knowledge is accessed and used by practitioners and policy makers to improve their practices, programs, and policies. This directory of project abstracts provides an overview of the ongoing efforts of federally supported researchers who are helping to advance this results-oriented mission.

INTRODUCTION

The 1997 edition of this directory describes research projects funded by the Research to Practice Division, formerly the Division of Innovation and Development, of the Office of Special Education Programs during Fiscal Year 1996.

The projects, which number over 180, are arranged into 11 topical sections according to the project's primary focus. Within each section, the projects are arranged alphabetically by Principal Investigator. Information provided includes: project title; grant number; beginning and ending dates; principal investigator name, address, and telephone number; and an abstract of the project which describes its purpose, method, and products. In the Products section of the abstract, information is provided (when available) about materials that the project has submitted to ERIC (Educational Resources Information Center) for inclusion in its federally supported database. This information includes a bibliographic citation and the ED number, which can be used to order the item from ERIC. If the ED number has not yet been assigned, the EC number (a processing number assigned by the clearinghouse submitting the document) is supplied. ERIC documents may be ordered from the ERIC Document Reproduction Service by calling 800-443-3742 or by sending an e-mail message to edrs@inet.ed.gov.

Access to the project information is also provided by five indexes in the back of the directory:

- Principal Investigator
- Competition Number
- Institution
- State
- Subject

Each of these indexes indicates the page number(s) for the relevant project description(s).

The information in this directory is taken from OSEP's database of research grants. If any errors are found in this material, please report them to the ERIC/OSEP Special Project by e-mail (dival@cec.sped.org) so that the database, and future editions of this directory, will be as accurate as possible.

SECTION 1

ASSESSMENT

Link in Leisure Education

GRANT NUMBER: H023C60025

Beginning Date: 10/1/92
Ending Date: 9/30/97

Principal Investigator: **Bullock, Charles**
University of Nevada
College of Human and Community Sciences
Health, Wellness, and Exercise Sciences/274
Reno, NV 89557-0036
702-784-4041, ext. 221

Purpose: This investigation will focus on understanding and documenting the extent to which self-determination skills can be facilitated using an individualized leisure education planning process with students with mental retardation.

Method: The first phase of research will feature a pilot study using a quasi-experimental single subject research design. Phase 2 will incorporate a pretest/posttest quasi-experimental design using curriculum based measures to investigate the effect of the leisure education intervention on dependent variables. Phase 3 will focus on generalization to the regular education setting, using a sample of students with mental retardation from grades 6 through 8 who have been referred for leisure intervention services.

Products: Specific outcomes expected include: (1) development of a systematic individualized leisure education planning process; (2) development of a comprehensive teacher training program promoting inclusion of leisure education as part of the special education curriculum; (3) development of a family training program to help families become active participants in their children's education; (4) documentation of the relationship of the leisure education program of self-determination and recreation participation; and (5) documentation of the role and significance of home-school collaboration and follow-up. Products will include: (1) internally printed reports and monographs; (2) articles submitted to journals and magazines; (3) presentation of results at professional conferences; (4) easy-to-read parent/family brochures and booklets; and (5) model program guidelines.

Performance Assessment and Standardized Testing for Students with Disabilities: Psychometric Issues, Accommodation Procedures, and Outcome Analyses

GRANT NUMBER: H023F50007

Principal Investigators: **Elliott, Stephen/ Kratochwill, T.**
Wisconsin Center for Education Research
1025 W. Johnson Street Office 453
Madison, WI 53706
608-262-8841

Beginning Date: 9/1/95
Ending Date: 8/31/98

Purpose: The project will attempt to gain an understanding of how students with a wide range of disabilities perform on and react to on-demand and in-class performance assessment tasks in mathematics and science.

Method: This investigation will focus on the use of performance assessment tasks as operationalized in a statewide student assessment system and by classroom teachers, with a sample of 4th- and 8th-grade students (N=200 per year) with varying academic abilities. A two-tiered, cross-sectional group design with two levels of independent variables (nondisabled and disabled) and two levels of subject matter (mathematics and science) will be used. Students' responses to performance assessment tasks and standardized multiple-choice tests, as well as post-assessment interviews with students, will provide data to answer questions concerning psychometric issues, accommodation procedures, and the utility of different types of assessments for evaluating academic outcomes. Teachers (at least 20) involved in the administration of the performance assessment instruments will also be interviewed via a structured questionnaire to provide additional data on accommodation procedures and the functioning of students with disabilities on performance assessment tests. Data analysis will involve MANOVA, multiple regressions, correlational analyses, and descriptive or qualitative features.

Products: Project results will achieve widespread dissemination through the principal investigators' writing and speaking efforts. Paper presentations and national conferences on children, assessment, and schooling as well as manuscripts submitted to journals will further enhance the impact of this project and facilitate advancement of research on performance assessment with students with disabilities.

Testing the Use of an Instrument To Measure Student Progress

GRANT NUMBER: H159H60002

Principal Investigator: **Frey, William**
American Institutes for Research
3331 K St NW
Washington, DC 20007
202-342-5031

Beginning Date: 10/1/96
Ending Date: 9/30/98

Purpose: The proposed project is designed to meet three primary objectives: (a) refining and validating the PASS (Performance Assessment for Self-Sufficiency) expert system decision rules; (b) investigating the use of PASS for local and state transition planning; and investigating the use of PASS as an alternative assessment for students with moderate to severe disabilities.

Method: Researchers at AIR will team with Westat, Inc., as well as expert consultants and representatives from state and local education agencies in a 3-year research design. The overall plan will be to establish a collaborative relationship with state and local practitioners to conduct substudies to investigate the implications of using PASS as a tool for transition planning and for measuring students' results at state and local levels. Project staff will provide guidance and support to SEAs and LEAs and work closely with them to design and implement appropriate field studies that will meet their own transition planning and assessment needs, as well as the needs of the project. Staff will train researcher/practitioners to develop demonstration sites and the criteria to evaluate the extent to which PASS meets their needs. Trainings and adaptations developed by each site to implement PASS will be recorded, and personalized service will be provided to turn around PASS Anticipated Service Needs and Functional Performance profiles quickly.

Products: Anticipated outcomes of the project include: (a) a refined conceptual framework for PASS as a tool for local empowerment, (b) a systematically validated and refined set of decision rules for the PASS expert system a set of demonstration sites for PASS, (d) answers to key feasibility/utility questions surrounding the use of PASS for transition planning and measuring student results, and (e) a set of recommendations related to "best practice" use of PASS for these purposes.

Parent and Teacher Congruency on Variations of a Screening Instrument: An Examination

GRANT NUMBER: H023B50009

Principal Investigator: **Gilbert, Sharon L.**
Auburn University
Department of Rehabilitation & Special Education
1228 Haley Center
Auburn University, AL 36849
334-844-5943

Beginning Date: 10/1/95
Ending Date: 12/31/96

Purpose: The project will investigate whether variations in the screening instrument format influence congruence of scores among both parents and the child's teacher.

Method: The screening instrument to be used is the Developmental Observation Checklist System (DOCS). The DOCS will be varied by (1) adding pictorial illustrations and examples and (2) adding a response category to the existing response options. The sample will consist of 100 sets of parents and 100 teachers of children chronologically below the age of 6 years with and without developmental delays, drawn from early intervention and child care programs in Alabama and Georgia. A 2x2x3 mixed measure analysis of variance will be used to analyze the effects variations in screening instruments have on score congruency among fathers, mothers, and teachers. Two between-subjects factors with two levels each and one without-subjects factor with three levels will be included in this design. An equal number of mothers, fathers, and teachers will complete versions of the screening instrument, and a control group of mothers, fathers, and teachers will complete the screening instrument in its original format.

Products: This project will provide current research on parental and professional assessment congruency and information on the impact of variations in the screening instrument on this congruency. Findings will be disseminated through conference presentations, journal articles and a doctoral dissertation paper.

The Influence of Teacher Characteristics on the Academic Performance and Behavioral Adjustment of Students with Attention Deficit/Hyperactivity Disorder

GRANT NUMBER: H023C50118

Principal Investigator: **Greene, Ross**
University of Massachusetts/Boston
100 Morrissey Boulevard
Boston, MA 02155-3393
617-287-7250

Beginning Date: 9/1/95
Ending Date: 8/31/98

Purpose: The purpose of this project is improve understanding of the characteristics of teachers that influence both their interactions with students with Attention Deficit Hyperactivity Disorder (ADHD) and the behavioral adjustment and academic performance of these students.

Method: The research will be based on a three-year study involving two groups of students, one with ADHD and one of matched comparison students. In Year One, students with ADHD and matched comparisons will be identified, screened, and assessed for baseline characteristics. In Years Two and Three, the behavioral adjustment and academic performance of students will be assessed within and between two teachers and two classroom environments to determine the impact of teacher characteristics on school outcome. The study will include a multimethod assessment of teacher characteristics, student characteristics, and student outcome (behavioral adjustment and academic performance), along with observations of teacher-student interactions. Statistical analyses will include structural regression procedures based on a hierarchical linear modeling approach to examining change over time.

Products: Research findings will be incorporated into in service training workshops throughout New England, and presentations will be made at meetings of national organizations of regular and special educators, school psychologists, parents of children with ADHD, and clinical and developmental psychologists. Findings will be published in professional journals, and will also be assimilated into University of Massachusetts' masters-level programs in regular and special education, counseling, and school psychology.

Longitudinal Affective and Social Outcomes of Special Education Placement Options for Students with Mild Disabilities

GRANT NUMBER: H023C30103

Principal Investigator: **Gresham, Frank**
University of California at Riverside
School of Education
Riverside, CA 92521
909-787-5228

Beginning Date: 7/1/93
Ending Date: 6/30/98

Purpose: This project will assess the stability and change of the social and affective characteristics of children with mild disabilities placed in "segregated" versus "integrated" settings compared to "at-risk" and children who are achieving normally.

Method: A total of 300 referred third graders will be randomly selected and matched in terms of age, gender, and ethnicity to 100 third graders identified as achieving normally. Measurement of social and affective outcomes will include sociometric assessments to assess peer acceptance/rejection, teacher ratings of social skills, self-concept, loneliness, school attitudes, and critical behavioral events. In addition, comprehensive assessments of students' school histories will be recorded and quantified from existing school records. The project will examine both short-term and long-term effects of various educational placements on students' social and affective development using a prospective longitudinal research design.

Products: Findings from this project will be targeted to have an impact in three areas: the academic community and other research activities, the cooperating school districts, the California State Department of Education, and the department's special education section. In addition to the conventional outlets of published reports and conference presentations within the research community, personnel from state school districts will be involved in education community conference presentations and publications to target educators and policy makers.

Examining Alternatives for Outcome Assessment for Children with Disabilities

GRANT NUMBER: H023F50008

Principal Investigator: **Haigh, John**
Maryland State Department of Education
200 West Baltimore Street
Baltimore, MD 21201
410-767-0236

Beginning Date: 9/1/95
Ending Date: 8/31/98

Purpose: This project will conduct a total of 12 studies forming a systematic research program on assessment accommodations and alterative assessment approaches that facilitate inclusion of all students in state-wide assessment programs.

Method: The planned research program will include three methodological approaches: (1) comparative studies involving a qualitative examination of the assessment systems in Kentucky and Maryland, as well as an investigation of characteristics of participating students with disabilities and their performance within those systems; (2) studies which involve secondary analyses of existing data bases to address critical technical and implementation issues in the assessment of educational outcomes for students with disabilities; and (3) experimental field studies that involve the collection of new data to address several technical issues crucial to the development and modification of state assessment policies. These studies will incorporate data from approximately 40,000 students with disabilities in these states, and subsamples of students with disabilities who will be exposed to the experimental comparisons. These studies will explore the following issues: the ways in which assessment and accountability systems must be conceptualized and developed to have the range and flexibility to accommodate all students, including those with disabilities; the relationships between instructional accommodations and accommodations in assessment; issues and concerns of reliability and validity in the use of testing accommodations and adaptation, alternative assessments, and specification of standards and outcomes; and the use of alternative assessments for students with severe cognitive disabilities.

Products: The work of project staff will be of immediate use to those at national, state, and local levels who are striving toward educational systems that are accountable for all students, including those with disabilities. Reports will be prepared on the synthesis and comparison of the Maryland and Kentucky systems, the summary of data from analysis of secondary data bases, and the findings from experimental field studies on the possible effects of various accommodations and assessment approaches.

Utility of Alternative Assessment Models for Identification of Mildly Handicapped Children

GRANT NUMBER: H023C20002

Principal Investigator: **MacMillan, Donald**
University of California at Riverside
School of Education
Riverside, CA 92521
714-787-5228

Beginning Date: 7/1/92
Ending Date: 6/30/97

Purpose: This project intends to establish the utility of alternative assessment vis-a-vis traditional assessment in establishing the eligibility of students with mild disabilities for special education and related services.

Method: Two interrelated studies will be performed. The first study will compare the extent to which current referral practices and alternative assessment procedures result in identification of the same "at-risk" children as would traditional assessment procedures. The first study will consist of 135 students evenly divided among three ethnic groups will be studied, assessed, and referred for formal assessment using alternative assessment procedures. The second study will compare the utility of four alternative assessment models (including dynamic assessment, achievement-achievement discrepancy, neuropsychological, and behavioral models). Investigators will evaluate 204 students, again stratified among three ethnic groups, using alternative assessment model and traditional assessment models, with order of testing randomized. Degrees of coincidence and agreement among ethnic groups and between alternative and traditional models will be studied.

Products: Findings from this project will inform policy makers on the utility of alternative assessment for reducing ethnic disproportions; moreover, it will permit informed decisions on the relative merits of the four commonly recommended alternatives. The project will also evaluate any ethnic bias among the models evaluated.

A Path to Literacy for Deaf Children through English and American Sign Language (ASL)

GRANT NUMBER: H023C30074

Beginning Date: 8/1/93
Ending Date: 7/31/97

Principal Investigator: **Prinz, Philip**
San Francisco State University
Department of Special Education
160 Holloway Ave
San Francisco, CA 94132
415-338-7655

Purpose: The project will assess the relationship between American Sign Language (ASL) competence and English literacy among deaf school children aged 8 to 15 years.

Method: Approximately 200 students aged 8 to 15 enrolled in a residential school for the deaf will be tested annually for 3 years. ASL skills will be measured using a specially devised comprehension test, administered by videotape and requiring a nonverbal response. English literacy will be measured using the Woodcock-Johnson Psycho-Educational Test Battery--Revised and a psycholinguistic computer measure developed by the investigator. Performance IQ will also be assessed. Research questions will then address the synchronic and diachronic relationships between ASL skills and English literacy, as well as exploring at what age ASL plays its greatest role in facilitating gains in English literacy.

Products: Findings of research will be disseminated via published research reports, assessment guides, diagnostic manuals, and presentations at national conferences. Results will serve as a basis for future assessment of ASL and academic performance to be carried out at participating schools to further extend the database. Follow-up research is expected to implement and evaluate a full-scale literacy program using ASL and English for deaf children in the United States. This program will serve as a model to numerous groups advocating a "bilingual/bicultural" approach for deaf children, and will therefore have a direct impact on many thousands of deaf students, their families, and their teachers.

A Study to Develop Braille Reading and Writing Norms and Instructional Interventions for Children Who Are Blind or Visually Impaired

GRANT NUMBER: H023C50123

Principal Investigator: **Sharpe, Michael N.**
Rum River Special Education Cooperative
315 7th Lane, N.E.
Cambridge, MN 55008
612-689-3600

Beginning Date: 7/1/95
Ending Date: 6/30/97

Purpose: The project will develop normative information on the Minnesota Braille Skills Inventory (MBSI) and establish a compilation of teaching intervention strategies for use by educators in teaching Braille reading and writing skills.

Method: Stage 1 activities will focus on collection of normative data, and will begin with a mailing to approximately 700-1000 teachers of the blind and visually impaired. Approximately 150-200 of these teachers are expected to participate in such project activities including obtaining parental consent, conducting MBSI assessments, generating effective teaching intervention strategies, and collecting related demographic and family data. Each teacher will collect this information for 3-5 students. Each student will receive family information and assessment packets, including background information and a full MBSI as well as a survey to collect information about the student's current level of academic and social-adaptive functioning. Concurrent with data collection activities, project staff will obtain technical assistance from a database development consultant to design the database, develop data entry systems, and train clerical staff to enter and conduct based analysis of information from teacher participants. As participants in Stage 2, teachers will be asked to provide a minimum of three teaching/intervention strategies they have found effective in teaching students Braille literacy. A Braille Intervention Strategies Committee will then be formed to compile these strategies and develop a teaching strategies manual.

Products: Through development and dissemination of the MBSI and its companion compilation of instructional interventions for teachers, teachers of the blind and visually impaired will have access to an instrument that reliably assesses students' reading and writing skills. Parents will also benefit from access to norm-referenced, performance-based information about their child's present level of Braille literacy.

Stress, Social Support and Adjustment to Middle School Transition in Children with Learning Disabilities

GRANT NUMBER: H023C40155

Principal Investigator: **Siperstein, Gary**
University of Massachusetts/Boston
Center for Social Development and Education
100 Morrissey Boulevard
Boston, MA 02125-3393
617-287-7250

Beginning Date: 9/1/94
Ending Date: 8/31/98

Purpose: The purpose of this project is to improve understanding of the stress students with learning disabilities experience during and after the transition to middle school, the social support systems they use, and the role that social support plays in their adjustment to the middle school environment.

Method: Project research will focus on: (1) the extent and nature of the stress students with learning disabilities experience during the first years of middle school; (2) the extent and nature of the social support students with learning disabilities receive from family, peers and school personnel; and (3) the role that social support plays in reducing stress and facilitating the adjustment of students with learning disabilities both during and after the transition to middle school. The subjects will consist of students from the 4th grade (N=360), including 120 students identified as having learning disabilities, 120 students identified as low achievers, and 120 students identified as nondisabled average achievers. During Project Year 1, staff will select students for the 3 study groups, focusing on those students who may be exhibiting extreme behavioral problems. At this time staff will also ask teachers to complete the School Climate Inventory to assess the heterogeneity of the elementary school represented in the sample. During Project Years 2 through 4, project procedures will involve the delivery of assessment instruments to students in individual interviews, and questionnaires mailed to the students' families. Staff will use interview and questionnaire results to assess both school and family climates. In following student interviews, staff will conduct a variety of stress scale tests to focus on changes in stressors the student is experiencing. In addition to formal assessment, project staff will monitor and track changes that may occur in family structure and composition, special education services for students, and changes within the school itself.

Products: With the information gained by this research, educators will be able to focus not only on ways to reduce the stressors of middle school, but on ways to help students with learning disabilities manage their stress with social support. This knowledge will serve as a foundation for the development of plans and programs designed to facilitate transitions between public school environments.

Educational Implications of Surviving Acute Lymphoblastic Leukemia

GRANT NUMBER: H023C50058

Principal Investigator: **Sullivan, Nanci**
University of Pittsburgh
350 Thackeray Hall
Pittsburgh, PA 15260
412-648-7080

Beginning Date: 7/1/95
Ending Date: 6/30/00

Purpose: The project will attempt to describe and understand, from the multiple perspectives of the survivor and parents, siblings, teachers, and the medical team, the educational and psychosocial consequences of surviving cancer. The project will also consider the problems student survivors encounter upon returning to school.

Method: In the first study, the sample will be individuals who were diagnosed with childhood leukemia at age 5-7 years, survived, and are now at least 18 years of age. These youth and their families will share their experiences, including the roles school and schoolwork played during and after treatment, including the response of the school to the illness and any learning difficulties that arose. A second study will examine survivors at 10-12 years of age, five years after diagnosis. This study will focus on subjects' recent re-entry experiences, and school personnel will be drawn into the interview sample. This study will explore what preparations (if any) were made for the child's return to school after treatment and what problems were encountered. The third study will follow survivors and their families as they experience school re-entry. Staff will observe students in their classrooms to understand the complex social and psychological issues associated with reintegration.

Products: A concerted effort will be made to ensure that research findings and products are widely disseminated and useful to diverse targeted audiences. The organization and summaries of findings in the preparation of conference presentations, reports to parents, reports to schools, reports to medical teams, submissions to refereed journals, submissions to teacher magazines, and other materials will therefore be tailored to address the interests and needs of parents, physicians, classmates, teachers, policy makers, and researchers.

Project Target: Criterion-Referenced Physical Fitness Standards for Adolescents with Handicapping Conditions

GRANT NUMBER: H023C30091

Principal Investigator: **Winnick, Joseph**
State University of New York
College at Brockport
Brockport, NY 14420
716-395-2383

Beginning Date: 6/1/93
Ending Date: 5/31/98

Purpose: The project will establish and validate criterion-referenced physical fitness test items and standards for adolescents with selected disabilities.

Method: Approximately 2,100 adolescents with sensory, orthopedic, or mental disabling conditions will be trained and/or tested on selected physical fitness parameters. Tests to be employed will include PHYSICAL BEST, the health-related test of the American Alliance for Health, Physical Education, Recreation, and Dance Fitnessgram; and the physical fitness test of the President's Council on Physical Fitness and Sport. Findings from these tests will be used as the basis for the statistical validity of developed criterion-referenced standards. In addition, a criterion-referenced Project Target Test of Physical Fitness and a corresponding educational program for the development of physical fitness would be created.

Products: As a result of project activities, four national tests of physical fitness will be made more valid, useable, and accessible for adolescents with disabilities. The project will extend the nation's current emphasis on criterion-referenced testing and programming to school-aged youngsters with disabling conditions.

SECTION 2

CULTURAL DIFFERENCES

Promoting Literacy through Ecobehavioral Assessment and ClassWide Peer Tutoring for Racial/Ethnic Limited English Proficient Minority Students with Disabilities

GRANT NUMBER: H023C40064

Principal Investigator: **Arreaga-Mayer, Carmen**
University of Kansas
Juniper Gardens Children's Project
Schiefelbusch Institute for Life Span Studies
1614 Washington Boulevard
Kansas City, KS 66102
913-321-3143

Beginning Date: 6/1/94
Ending Date: 7/31/97

Purpose: This project will investigate and validate instructional practices that will maximize the literacy and academic achievement gains of racial and ethnic limited English proficient (LEP) minority and majority students with disabilities in self-contained, resource, and regular education settings.

Method: Staff will utilize ecobehavioral assessment and analysis procedures as a research tool for identifying procedures associated with effectiveness criteria, and evaluating ClassWide Peer Tutoring (CWPT) as an intervention for LEP students with or without disabilities. The first of five project studies will utilize ecobehavioral assessment procedures to measure the classroom environment to determine ways to naturally facilitate literacy and academic progress in mainstream regular and special education classrooms. A total sample of 180 students will be selected for classroom observations that will be divided among self-contained, resource room, and regular education settings. Measures used will include demographic measures, process measures, and product measures. During Year 2, staff will conduct Studies 2 and 3 in order to evaluate the effectiveness of CWPT as an instructional procedure that facilitates literacy and academic progress. In each treatment group, 2 students will receive tutoring in reading, 2 in spelling and 2 in math. Data will continue to be collected on the literacy, academic and language performance as a reflection of CWPT procedures. Study 3 will replicate Study 2 findings using a larger sample of students. During Year 3, staff will conduct Study 4, in which 24 students without disabilities will serve as partners in tutoring target students in reading, spelling, and math. At this time, staff will also conduct Study 5 to verify procedures from Study 4, refine those procedures, and implement CWPT programs with a larger sample.

Products: This project will result in new knowledge concerning the ecobehavioral features of instruction, systematic replication, adoption of an effective instructional procedure (CWPT) to a new population, and the translation of research to practice.

Pihana Na Mamo:
The Native Hawaiian Special Education Project

GRANT NUMBER: H221A50002

Principal Investigators: **Campbell, Robert/ Hanohano, Maggie**
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808-586-3587

Beginning Date: 1/1/96
Ending Date: 12/31/00

Purpose: The purpose of this project is to improve special educational services provided to children and youth of native Hawaiian ancestry with special needs.

Method: This project will focus on: (1) the development of comprehensive and culturally appropriate instructional models to effectively serve special education students of Hawaiian ancestry in the least restrictive environment; and (2) on meeting the needs of students at risk of being identified as needing special education in regular classroom settings. Project staff will implement a state-wide parent and community involvement component to encourage and support the participation of parents in school programs. Parent involvement staff will be hired to coordinate efforts within each community to increase parental participation. Staff development activities will be sponsored to support the use of direct instructional practices. Through the funding of master teachers and part-time teachers, support will be provided for development and implementation of school-wide plans.

Products: Outcomes from the project will include: improved educational performance among special needs students of Hawaiian ancestry; increased participation of Hawaiian parents and community leaders in schools; improved school-level and district-level capacity to serve Hawaiian students in the least restrictive environment; and increased public awareness of the educational needs of Hawaiian students.

Parameters of Effective Instruction for Language-Minority Students with Disabilities and Those at Risk for School Failure: Research Synthesis and Dissemination

GRANT NUMBER: H023E50013

Principal Investigators: **Gersten, Russell/**
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541-342-1553

Beginning Date: 7/1/95
Ending Date: 6/30/97

Purpose: The project will begin to develop a professional knowledge base on effective teaching practices for language minority students with mild disabilities or who are at risk for school failure.

Method: This study will focus on instructional issues, specifically classroom practices which demonstrate the greatest promise for improving the academic achievement of language minority students with disabilities. Practices which break down barriers between school and home and those which assist in establishing proactive collaboration between educators and families will be especially targeted. Staff will combine Slavin's (1986) best-evidence synthesis and Ogawa and Malen's (1991) multi-vocal approach in order to better grasp the wide range of studies within the literature bases that will have relevance for addressing the working hypotheses. The technical quality of each piece of literature will be assessed. The overall synthesis will be based on a set of working hypotheses generated from earlier research and modified and refined with input from a wide range of stakeholder constituencies.

Products: A series of audience-specific products will be developed collaboratively with OSEP. The project will utilize input from the constituency groups and from a national forum.

Center of Minority Researchers

GRANT NUMBER: H029J60006

Principal Investigators: **Hallahan, Daniel/ Kauffman, James**
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804-924-0756

Beginning Date: 1/1/97
Ending Date: 12/31/99

Purpose: To enhance the capacity of minority researchers in special education to build and pursue research agendas focused on minority issues in the education of students with disabilities.

Method: The theoretical basis of this project will emphasize the personal, interpersonal, and community variables essential to the future of minority scholars as a sustained research presence in the field of special education. Four new minority scholars will be recruited for doctoral study at the University of Virginia, with a substantial portion of their program devoted to providing carefully structured opportunities for networking with minority scholars from around the country. Each year of the project, six emerging minority scholars will be provided with postdoctoral fellowships and necessary resources (for example, computer technology and graduate assistance) to take advantage of mentoring from established research leaders. This mentoring will lead to collaborative research grant proposals between emerging and established scholars. Other minority scholars will be invited to interact with each other, the postdoctoral fellows, and doctoral students in content and skill-building seminars. Joining in this project will be the Alliance 2000 Project and Project SUCCESS at the University of New Mexico, as well as the Bueno Center at the University of Colorado.

Products: Project findings will be disseminated via journal articles, conference presentations, electronic listservs, and other appropriate outlets. Two newsletters per year describing project activities will be published and sent to the 300 institutions on the Alliance 2000 mailing list. Alliance 2000 and Project SUCCESS will help provide linkages of the minority scholars. The Bueno Center will do likewise, while also facilitating the development of a research agenda for scholars pursuing minority issues focused on Hispanic/Latino populations.

Transition from School to Work and Community Living: Asian-American Students with Disabilities and Their Needs in Transition

GRANT NUMBER: H023N40016

Principal Investigator: **Kimm, Christina**
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Beginning Date: 9/22/94
Ending Date: 9/21/97

Purpose: The project will investigate parents' expectations and students' needs for transition among students with developmental disabilities across six ethnocultural subgroups.

Method: Ethnocultural subgroups of Asian-American students will include Chinese, Filipino, Japanese, Korean, Vietnamese, and I other Asians. The project, will study the level of their awareness of available transition services. The project will also provide information about parent and student rights and available transition services in their own language. It will equip education professionals with important information for appropriate and effective transition planning, reflecting a child's cultural values, future employment preferences, and living arrangements. Ten families of Asian-American students between 16 and 22 years of age from each subgroup will be recruited from six school districts and through public announcements on ethnocultural radio and television broadcasting systems in the greater Los Angeles area. Community leaders from the six highlighted ethnocultural subgroups will be invited to take part in dissemination activities. A secondary demographic data analysis will be conducted, followed by a study of parents' expectations and needs in transition using interview and survey methods.

Products: A brochure in six different Asian languages, technical reports, and peer-reviewed journal articles will be prepared as final products of this project.

Effects of Use of Authentic Assessment Procedures on Literacy Development of Bilingual and Monolingual Students with Learning Disabilities

GRANT NUMBER: H023C50097

Principal Investigator: **Lopez-Reyna, Norma**
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Chicago, IL 60607
312-996-4526

Beginning Date: 10/1/95
Ending Date: 9/31/98

Purpose: The project will explore the assessment procedures that teachers use in order to make decisions about the literacy instructional services of students, and to better understand learner characteristics which may often mask second language acquisition problems when compounded with learning disabilities.

Method: This will be an exploratory and descriptive investigation using the case study approach as the main research strategy from an ethnographic perspective. Three school sites within the Chicago Public Schools will represent one case study each. By studying the three educational settings as well as key figures within each (including teachers, students, parents, and other school staff), it is expected that the particular culture of each school will illuminate larger issues about special education teachers' assessment practices. Teachers will be interviewed regarding their theories of learning disabilities, their beliefs about literacy instruction and learning, and their knowledge of writing process and reading development. Meanwhile, research staff will engage in classroom observations and videotaping to establish an ethnographic baseline understanding of teachers' practices prior to intervention. Teachers will then receive training and technical assistance in such assessment techniques as portfolio assessment, student self-evaluation, and reflecting on both process and product aspects on student work. In addition to describing in detail all participating school and classroom cultures, comparative analyses will be conducted to examine shared characteristics of teachers' assessment procedures.

Products: Findings will be incorporated into development of a series of videotape and other training materials on authentic assessment as it informs literacy instruction. Ethnographic findings on interrelationships between second language acquisition and learning disabilities will be disseminated through these training materials as well as journal publications.

Accessibility to and Utilization of Intervention Services in the First 6 Years: A Longitudinal Study of African-American Families and Service Agencies

GRANT NUMBER: H023C40083

Principal Investigator: **Marfo, Kofi**
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813-974-3770

Beginning Date: 9/1/94
Ending Date: 8/31/97

Purpose: The project will examine the factors that influence early intervention service accessibility and utilization within African-American families with children who are developmentally disabled.

Method: This research is based upon a conceptual framework that links service utilization to three major components: the personal, familial, and cultural characteristics of potential users, dimensions of the service delivery system, and the socio-political context within which service delivery and utilization take place. The first of two longitudinal components entails a survey of early intervention and related service agencies, designed to obtain data on: (1) the representation of African-American families in intervention programs; (2) agency policies and actions regarding the recruitment of families from under served populations; and (3) policies and practices regarding the delivery of culturally sensitive and appropriate services. The longitudinal design will enable the research team to ascertain changes occurring in all three areas over the 3-year period of the study. The second component entails a study of the intervention experiences of African-American families of children with disabilities during the first 6 years of the child's life. The design for this component encompasses two cohorts of families (45 in each), one with children in the birth to 3-year range and the other in the 3- to 6-year range. Qualitative analyses will provide a holistic context for understanding responses to the various scales and questionnaires, while quantitative analyses will be used to explore the extent to which relationships implied in the conceptual model can be validated statistically. Analysis will also include determination of the appropriateness, reliability, and validity of the various measures employed in the study so that the study's underlying conceptual model can be subjected to rigorous empirical testing in subsequent work.

Products: Through this project, researchers will learn the extent to which existing early intervention and other related services are accessible to African-American families of children with developmental disabilities, identify barriers to service accessibility and utilization, and draw implications for policy, practice, and future research.

An Examination of the Effect of Three Spanish Reading Approaches on the Reading Achievement of Limited English Proficient (LEP) Students with Learning Disabilities and LEP Students At-Risk for Learning Disabilities

GRANT NUMBER: H023B50036

Principal Investigator: **Plasencia-Peinado, Judith**
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541-346-2144

Beginning Date: 9/15/95
Ending Date: 3/14/97

Purpose: This project will examine the effectiveness of three instructional methods delivered in Spanish for teaching first grade students who are limited English proficient (LEP) and who have learning disabilities (LD), and for teaching first grade students who are LEP and at risk for LD.

Method: The first method, Literature-Based Spanish Reading Approach, is based on characteristics of effective reading instruction for students with LEP and LD. It attempts to teach meaning by using a strong literature component and combining reading, writing, and oral language but does not teach phonics or phonological awareness. The second method, Systematic-Integrated-Spanish Reading Approach, teaches explicit phonic and phonological awareness as well as meaning, and integrates the characteristics of effective early reading instruction for students who have LEP and LD with characteristics of effective early literacy instruction previously validated through research with English-speaking students. The third method, General-Education-Spanish Reading Approach, is the standard reading instruction already provided in the general education classroom, teaching meaning and implicit phonological awareness and phonics. First grade students (n=120) with LEP from four schools in Los Angeles will be selected to participate in this study. Children will be randomly assigned to one of the three methods of instruction. Treatment will include 2 weeks of baseline, followed by 20 weeks of daily, hour-long intervention, ending with a week of follow-up intervention. A between- groups design will be used to examine effectiveness of different approaches. Method of instruction will be the independent variable; the dependent variable will be student performance, which will be monitored twice weekly using curriculum-based measurement, as well as letter naming and letter sound fluency tasks. Student progress will be examined using a Hierarchical Linear Modeling analysis.

Products: Planned products include an annual project report, a number of research papers, a handbook reporting on project procedures, a teacher handbook, and other publications of project outcomes. Dissemination activities will include inservice consultations, guest lectures, site visits, and presentations at professional conferences.

SECTION 3

INFANTS, YOUNG CHILDREN, AND FAMILIES

A Study of Four African-American Families Reading to Their Young Deaf Children: A Longitudinal Study

GRANT NUMBER: H023B60034

Principal Investigators: **Andrews, Jean/**
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Beginning Date: 7/1/96
Ending Date: 6/30/97

Purpose: To investigate the effects of providing training for parents of African American deaf children in: (a) sign language, (b) parent-child book reading behaviors, and early writing activities.

Method: Four African-American families with 3-to-5-year-old deaf children will participate. Each family will receive a set of 10 storybooks featuring a variety of themes and characters, including picture books, predictable books, alphabet books, and other storybooks appropriate for preschool/kindergarten-aged children. Families will receive 10 parent/child reading/writing interventions, to be performed in 45-minute sessions. Pre- and post-training parent questionnaires will be evaluated for changes in the deaf child's reading/writing behaviors. Additional data will be gathered through teacher questionnaires, pre- and post-assessment of children's literacy skills, videotaped parent/child reading sessions, and discussions between the Student Investigator and the parents.

Products: This study will provide a literacy teaching model which incorporates the learning styles and needs of the African-American culture, a model with potential for use by other professionals in special education, reading, and communication disorders and by teachers-in-training and administrators. Project results will be disseminated through conference presentations and professional journals.

A Longitudinal Study of Young Children with Fragile X Syndrome and Their Families

GRANT NUMBER: H023C30081

Principal Investigator: **Bailey, Don**
University of North Carolina at Chapel Hill
Frank Porter Graham Child Development Center
CB# 8180
Chapel Hill, NC 27599-8180
919-966-4250

Beginning Date: 7/1/93
Ending Date: 6/30/98

Purpose: This project will to conduct a longitudinal study of the development of at least 100 boys with Fragile X syndrome between birth and 72 months of age.

Method: Using growth curve analysis the project will characterize developmental patterns and document the attainment of key developmental milestones in five domains: cognitive, communicative, social, adaptive, and motor skills. The project will also document stability and change in temperament and behavioral characteristics. Interviews and surveys will be used to describe unique family contexts among subject children. A final component of the study will determine clinicians' perceptions of the unique learning styles and instructional or therapeutic strategies needed for young children with Fragile X syndrome.

Products: The project hopes to provide a foundation for future proposals including a longitudinal life span study of persons with Fragile X syndrome and their families, as well as other research linking biological and environmental factors to developmental outcomes. Dissemination efforts will include promotional brochures, a monthly newsletter, curriculum materials, and handbooks.

Age of Peers and Its Effects on the Social Interactions of Preschoolers with Disabilities

GRANT NUMBER: H023C20168

Principal Investigator: **Bailey, Don**
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919-966-4250

Beginning Date: 10/1/92
Ending Date: 9/30/97

Purpose: This project involves a 5-year series of studies that will investigate the extent to which age of peers influences the development of social skills among preschoolers with disabilities.

Method: In the first 2 project years, 80 3- and 4-year-olds with mild disabilities will be paired with four different play partners for two play sessions each. Sessions will be analyzed for level, complexity, and nature of social interactions. The second series of studies will examine whether or not repeated opportunities for dyadic play with a younger child improve generalized social skills of 4-year-old children with disabilities, as has been observed to be the case with nondisabled children with low rates of social interaction. Thirty 4-year-olds with mild disabilities will be randomly assigned to dyadic play with a same-age peer, dyadic play with a younger child, or a control group.

Products: These studies will increase understanding of how peers influence social interactions of young children with disabilities. Important information on the need to consider peer characteristics when designing early intervention programs to promote social competence will result. Project findings will be disseminated through journal publications, presentations at conferences, and development of guidelines for teachers in child care settings serving young children with disabilities.

Elementary School and Boys with Fragile X Syndrome

GRANT NUMBER: H023C50034

Principal Investigator: **Bailey, Don**
Hatten, Deborah
University of North Carolina at Chapel Hill
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919-966-4250

Beginning Date: 7/1/95
Ending Date: 6/30/00

Purpose: This project will conduct the elementary school portion of a longitudinal, life-span study of boys with Fragile X syndrome.

Method: Project staff are currently conducting the early childhood portion of this study, gathering data on the early development, temperament, behavior, and patterns of family coping and adaptation of 100 boys. During the elementary phase, research questions will focus on: (1) developmental, functional, and school achievement growth patterns; (2) factors that influence development and achievement; (3) the development of social competence and peer relations; (4) factors influencing social competence and peer relations; (5) the nature and quality of school experiences provided during the elementary years; (6) the needs and concerns of teachers working with boys with Fragile X syndrome; (7) effective strategies for enhancing achievement and social competence; and (8) patterns of family coping and adaptation during the elementary years. Eighty boys and their families will be followed between 1st and 5th grade to answer these questions. Mixed method designs and hierarchical linear analyses will be used to chart patterns of growth and change, identify correlates of change, and determine successful educational and intervention strategies.

Products: Research findings will be submitted to leading journals for peer review and publication, and also presented at state, regional, and national conferences related to child development, education, and family support. Specific project publications will include: a manual for parents describing in simple language the early development and needs of children with Fragile X syndrome; a guide for teachers and therapists who work with these children and their families; and a professional guide summarizing findings from the survey of professionals, which will also describe important factors to consider in working with families.

Parent-Child Interaction Systems: A Long Term Evaluation

GRANT NUMBER: H023N30028

Principal Investigator: **Boyce, Glenna**
Utah State University
Center for Persons with Disabilities
Logan, UT 84322
801-750-1179

Beginning Date: 10/01/93
Ending Date: 12/31/96

Purpose: This project will use an existing parent-child interaction data set to improve the usefulness of parent-child interaction scoring systems, and to further the knowledge of the nature and effects of the mother-child interaction.

Method: In addition to identifying parent and child behaviors that correlate with measures of child development, research will identify parent and child characteristics and parents' perceptions of stress, social support, and resources that best correlate with parent interaction behaviors. After the existing data set has been coded to measure both mother and child behavioral dimensions in order to examine the bidirectionality of the interaction, a number of analyses will be performed, including: a factor analysis to determine factor structures of all relevant systems, analyses to demonstrate criterion and predictive validity, and analyses to establish the relationship between the variables set forth in project objectives. The stability and change within dyads of parent-child interaction will further be examined over time.

Products: By establishing criterion-related and predictive validity of coding systems employed, staff will enable clinicians, practitioners, and researchers to better choose and employ the coding system best suited to their needs. A monograph will be produced by project staff and consultants during the final year. Summaries of findings will be disseminated through a newsletter and computer bulletin boards.

An Analysis of the Effectiveness of Staffing Patterns for Young Children Attending Natural Group Environments for Early Intervention

GRANT NUMBER: H023C30072

Principal Investigator: **Bruder, Mary Beth**
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Beginning Date: 10/1/93
Ending Date: 9/30/97

Purpose: This project will examine the effects of different service delivery structures on the development of toddler-age children with disabilities (and their families) receiving early intervention within natural group environments.

Method: The study will compare four different service delivery structures within natural group settings with toddler-age children with disabilities receiving services under the Department of Mental Retardation. Children will be assigned staff and services through the Individualized Family Service Plan (IFSP) process. The four service delivery structures to be evaluated will include: (1) a full-time teacher within the group environment the entire time the child attends and therapy (as needed) delivered within the group environment; (2) a full-time teacher within the group environment the entire time the child attends and therapy delivered (as needed) outside the natural group environment; (3) a teacher attending the natural group environment at least once a week for consulting purposes and therapy delivered (as needed) within the natural group environment; and (4) a teacher attending the natural group environment at least one time a week for consulting purposes and therapy delivered outside the natural environment. Evaluation of these service structures will occur on a 3-month basis during a 12-month enrollment period for each child.

Products: The project will expand the current knowledge base on the effects of receiving early intervention in natural group environments in a number of ways. Findings will be presented at state, local, and national conferences, and articles and descriptions of service delivery practices will be prepared for journals and newsletters. Research monographs will be generated on methodology and findings, and training manuals will be prepared on service delivery practices found to be effective.

Longitudinal Study of Risk and Protective Factors Affecting the Development of Children Prenatally Exposed to Illicit Drugs and Alcohol

GRANT NUMBER: H023C50111

Principal Investigator: **Carta, Judith**
University of Kansas
Juniper Gardens Children's Project
Schiefelbusch Institute for Life Span Studies
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913-321-3143

Beginning Date: 7/1/95
Ending Date: 6/31/00

Purpose: The project will investigate early elementary school experiences and developmental outcomes of children with documented exposure to illegal drugs during pregnancy.

Method: Cohorts of both drug-exposed and nonexposed children ages 5 - 9 years (N=60 children in each cohort) will be followed during their early schooling. Within each cohort, 40 children will have had prenatal exposure to illegal drugs and/or alcohol and the remaining 20 will be a comparison group with no documented exposure. For the first cohort, the work represents a four-year extension of a completed two year developmental study. For the second cohort, this study provides an opportunity to replicate and cross-validate developmental trajectories and findings from the earlier research with Cohort 1. Since a wide variety of factors have been found to influence student outcomes and adjustment, measures of prenatal drug exposure, family risk and protective factors, developmental status, child behavior at home and school, environmental factors, academic achievement, and social/emotional adjustment will all be used. Individual testing, observations in the classroom and on the playground, and school archival record searches will be employed to gather data for these measures. Data analyses will be conducted to: (1) examine differences between groups and (2) explore the variance accounted for by drug exposure, independent of other variables, in the prediction of later school success and failure.

Products: Results of the first analytical study (of Cohort 1 from ages 3-9) will be incorporated into preservice training in graduate university course work. Annual reports will be developed and presentations will be made at national and regional gatherings of professionals, researchers, and educators, as well as articles submitted to professional journals to reach this same audience.

A Longitudinal Follow-up of Graduates from Two Contrasting Preschool Instructional Models: Phase 2

GRANT NUMBER: H023C30007

Principal Investigator: **Cole, Kevin N.**
University of Washington
Experimental Education Unit Box 35 7925
Seattle, WA 98195-7925
206-543-4011

Beginning Date: 9/1/93
Ending Date: 8/31/98

Purpose: This project will study the lasting effects of two approaches to preschool education as well as the course of development of preschool graduates as they progress from childhood to adolescence, passing through two critical school transition periods.

Method: The subjects of the study will be 197 elementary and middle school children who qualified for special education and participated in a previous preschool intervention study. These children, who have mild to moderate delays in cognitive and language skills, received either an academically based Direct Instruction model or a cognitively based Mediated Learning model for between 1 and 3 years of intervention. Subjects will be followed through another five years of schooling and the associated transitions. Evaluation instruments will include a variety of cognitive, academic, social, adjustment, school placement, and employment measures. Data analysis will vary according to the research question addressed, and include repeated measures analysis of variance, multiple regression, survival analysis, and growth curve analysis techniques.

Products: The project will generate much-needed information on: the ability to match instructional programs to students; long-term effects of numerous models for early intervention, with some retrospective information on children's readiness to learn as a result of either model; key period in school when children with developmental delays are at risk for difficulty, or ready to experience a developmental growth spurt; the relationship and mechanisms between early cognitive and linguistic functioning and later skill development; and validity of initial judgements of risk based on early assessments.

Committee on Prevention of Reading Difficulties in Young Children

GRANT NUMBER: H023S50001

Principal Investigator: **Denning, Douglas**
National Academy of Sciences
2101 Constitution Avenue
Washington, DC 20418
202-334-3377

Beginning Date: 11/15/95
Ending Date: 11/14/97

Purpose: The project will conduct a thorough study of contemporary research on the development of pre-reading and reading skills, the assessment of factors associated with reading problems, and the comparative effectiveness of formal and informal interventions for young children who are at risk for developing reading problems.

Method: The study will be carried out by a committee of experts in cognitive science, developmental psychology, neuroscience, teaching and learning, literacy, and special education. The research that will be reviewed includes advances in cognitive psychology, early childhood development, neurology, ethnography, and related fields. Promising methods for early identification of reading problems will be examined, as will the scientific bases and effectiveness of various educational and other interventions for particular groups of children, including those with cognitive or neurological deficiencies, those from impoverished or minority subcultures, and perhaps those with limited English proficiency.

Products: At the study's conclusion, the committee will issue a scholarly report identifying effective approaches to assessment, prevention, and intervention in a range of settings including schools, preschools, Head Start programs, child care centers, social service agencies, doctors' offices, health care clinics, and the home. In addition, the committee intends to develop a series of concise publications tailored to specific audiences, and will explore the possibility of separately funded dissemination venues, including public media.

Strategies for Promoting Social Relationships Between Young Children with and without Disabilities

GRANT NUMBER: H023N50009

Principal Investigator: **Favazza, Paddy**
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901-678-2533

Beginning Date: 8/21/95
Ending Date: 8/20/98

Purpose: This project will extend the line of research on attitudes toward preschoolers with mild to severe disabilities, and will develop naturalistic and economical strategies for effectively promoting social relationships among preschool children with and without disabilities.

Method: Over a three year period, 17 kindergarten teachers and 15 special educators, 250 kindergartners, and 124 preschoolers with mild to severe multiple disabilities from Memphis City Schools will participate. Study One will use a randomized group design to examine the effects on social contact, children's books, and guided discussions on the attitudes of kindergarten children toward children with disabilities. In Study Two, a component analysis will be used to examine the effectiveness of individual components of the intervention package. Study Three will examine the feasibility and effectiveness of the intervention package as a class-wide program for promoting acceptance of individuals with disabilities.

Products: Products will include a new, validated approach to promoting social relationships among nondisabled, kindergarten-age children and young children with disabilities, including a set of procedures within a training manual for teachers and support staff to use the methods developed and researched through this grant activity.

Mother-Child and Teacher-Child Play with Toddlers Prenatally Exposed to Cocaine

GRANT NUMBER: H023B60009

Principal Investigators: **Fewell, Rebecca/**
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305-243-6517

Beginning Date: 9/03/96
Ending Date: 9/02/97

Purpose: To identify interactive qualities of both mothers and teachers that lead to more sophisticated child play in a sample of toddlers prenatally exposed to cocaine. Also addressed will be differences between interactive styles of parents and teachers, and how child interactive qualities affect both play and interactive styles.

Method: This study will be conducted by coding videotaped records of 50 toddlers prenatally exposed to cocaine, in two different sessions. In the first session, the toddler will be videotaped during a free-play interaction with his or her mother or primary female care giver. In the second section, free play interaction with a teacher will be videotaped. Adult interaction qualities, child interaction qualities, and child play skills will all be coded. These coded data will be analyzed to determine what adult interactive qualities are associated with more competent child play, whether or not children prenatally exposed to cocaine differ in their free play interactive styles, and how interaction with mothers versus teachers influences these factors.

Products: Results of this study will be disseminated through development of relevant journal articles to various audiences, including researchers, teachers, curriculum developers, and parents. Presentations will be made at local and national conferences, as well as through teacher-training workshops and parent workshops.

Research on Treating Aggression in Young Children

GRANT NUMBER: H023N40039

Principal Investigator: **Foder-Davis, Julie**
University of Idaho
Idaho Center on Developmental Disabilities (ICDD)
129 West Third
Moscow, ID 83843
208-885-3559

Beginning Date: 10/1/94
Ending Date: 9/30/97

Purpose: The project will systematically replicate and extend the findings of a pilot investigation, in which the rate of aggression across four children decreased to or at normative levels through the use of observational learning of high status peers, individualized training scripts, and a self-evaluation paradigm.

Method: Staff will develop an observation system and a computerized system of situation descriptions. Replication studies of pilot research will then be conducted, followed by two additional studies with Native American subjects. In a small group setting, children will watch high status peer models discriminate between positive and negative examples of social interactions, state positive alternatives to aggression, and practice positive social interactions using puppets. Following study of peer models, subjects will practice these same responses and will be tested with novel scenes for knowledge acquisition. Following training, the effects of a self-peer-teacher evaluation procedure to enhance generalization from training settings to observational settings will be tested.

Products: This research will create a training methodology which will: (1) reduce the probability of young children being placed in special education and support friendships and long-term inclusion in general class settings; and (2) reduce aggressive behaviors in young Native American children attending tribal public school, day care, and/or Head Start. In addition to dissemination of the computer program, observation system and training package, findings will be disseminated via a series of journal articles and conference presentations as well as a final report for the funding agency.

Early Intervention Benefit/Cost Longitudinal Study

GRANT NUMBER: H023C20066

Principal Investigator: **Goetze, Linda**
Utah State University
Early Intervention Research Institute
Logan, UT 84322-6580
801-797-3125

Beginning Date: 7/1/92
Ending Date: 6/30/97

Purpose: This project will provide credible evidence on the benefits and costs of early intervention programs, including programs that vary by intensity, the degree of parent involvement, and age at start.

Method: Data will be examined from a benefit-cost follow-up study of 430 children with a variety of disabilities including visual impairments, intraventricular hemorrhage, medical fragility, and others who received early intervention from the Early Intervention Research Institute from 1985-1990. Subjects were randomly assigned to control and experimental groups where both groups of children received treatment. Experimental treatment either began earlier, was more intensive, or added a parental involvement component in addition to the control services. By following both groups of students longitudinally, the study will estimate benefits to families and society that result from the early intervention received.

Products: By comparing dollars spent with dollars saved, this project will provide a perspective previously unavailable in the field of early intervention for children with disabilities and will help to answer questions regarding which early intervention programs serve children and the community best.

Longitudinal Assessment of Emerging Behavior State Patterns Among Infants and Children with Severe and Profound Disabilities

GRANT NUMBER: H023C30029

Principal Investigator: **Guess, Doug/ Rues, Jane**
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Beginning Date: 8/1/93
Ending Date: 7/31/98

Purpose: This project will systematically investigate changes in state during the first few months and years of life, and will identify variables and conditions that potentially impact the emergence of various state organization patterns.

Method: A longitudinal research design will measure state behavior across early months and years of life among 25 infants at high risk for profound and severe disabilities. Additionally, a General Systems Theory approach will be adopted to investigate the process of emerging state patterns in relation to other interacting variables, such as: levels of cognitive, motor, and social development; quality and frequency of rhythmic patterns; communicative skills; social interactions with care givers; and medical interventions and health status.

Products: Results of this research will provide intervention programs with important information for assisting in the development of more stable and adaptive state patterns in persons with profound and multiple disabilities. Findings from the project will have additional implications for the assessment and treatment of traumatic brain injury, and the behavioral changes and physical losses associated with aging.

The Impact of Federal Policy and Resulting Legislation on Family Systems

GRANT NUMBER: H023C10103

Principal Investigator: **Haring, Kathryn**
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Beginning Date: 12/15/91
Ending Date: 12/14/96

Purpose: This project will study how early intervention provided to infants and toddlers impacts families, and specifically, how families perceive these services. The study will examine three assumptions: (1) families need and welcome these services and supports; (2) early interventionists know how to validly assess family needs and develop programs to meet them; and (3) these services will enhance the developmental potential of infants and toddlers who are disabled or at risk.

Method: Researchers will collaborate with the University of Oklahoma Medical Center in the early identification of approximately 36 families of neonates who are at significant risk due to genetic/congenital conditions, birth trauma or prematurity, and/or combinations of maternal risk factors (e.g. age, substance abuse, AIDS, etc.). Over a 5-year period, qualitative methodologies will be used to probe the perceptions and experiences of parents (and when appropriate, siblings) of infants, toddlers, and preschoolers. Twelve families will be identified in year 1 and followed over 3 years. Twelve new families will be added each of the first 3 years. A total of three intensive, audio taped interviews will be conducted per year for each family, including interviews conducted with a significant other outside the family, but involved in the family system in order to triangulate the data collected. The first interview will be designed to probe the issues of: (1) initial communications with professionals from a variety of disciplines; (2) transitions from hospital to home; (3) contacts from and referrals to additional services and resources; (4) realizations and adjustments to the infant's needs; (5) self-perceptions and coping; and (6) perceptions of assistance received from professionals and interpersonal networks. Follow-up interviews will further document the nature of services, supports and/or resources provided to or sought by the families.

Products: Products will include five annual research reports, a final monograph, book, and field guidelines for parent involvement in early intervention.

Facilitation of Intersubjectivity to Remediate Language Delay of Preschool Children with Mental Retardation

GRANT NUMBER: H023C20077

Principal Investigator: **Kahn, James**
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Beginning Date: 10/01/92
Ending Date: 8/31/97

Purpose: This 4-year project will investigate the effectiveness of interventions to facilitate language development of toddlers and preschoolers with mental retardation. The premise underlying the six studies in the project is that intersubjectivity must be established in order for the child with disabilities to utilize the verbal and nonverbal information from others with whom he or she interacts. The project will describe and test experimental efforts to facilitate the establishment of joint referential states for communicative exchanges.

Method: The studies will examine both descriptively and experimentally the integration of cognitive, affective, social, communicative, and language skills during the first 5 years of life. In Study 1, extant videotapes from at least 200 mother and infant dyads (infants ranging in mental age from 10-18 months) will be coded in real time to indicate their attentional state vis-a-vis both objects and their mothers. The development of joint attentional state will be described from this cross-sectional sample of young children in comparison to published reports on normally developing children. Seventy-six children will be involved in the remaining five longitudinal experimental studies. Studies 2, 3, and 4 will utilize prototypic interactive computer games for sensorimotor skills and storybooks as one context to compare to more typical dyadic play and storybook contexts in terms of the establishment of joint reference and communication. In Study 2, teachers will attempt to establish joint reference with young children with disabilities in the context of an object permanence computer game ("Find the Bunny") or during play with mechanical toys. Study 3 will be a replication of Study 2 except that parents and their children with disabilities will be involved. Ongoing analysis of videotapes of teaching sessions will provide the empirical basis for suggestions about ways to facilitate joint attention and communication within these contexts. A computer controlled videotape analysis system will be used with both keyboard and voice input to expedite the tape rating and feedback process. In Study 4, parents will be provided with interactive, computerized storybooks or regular storybooks to examine the utility of reading activities as joint referential and communication contexts. Study 5 will broaden the study to establishment of joint reference and language

Facilitation of Intersubjectivity to Remediate Language Delay of Preschool Children with Mental Retardation (cont.)

production in a small group setting (3 children, 1 teacher) in which simple play scripts are enacted (e.g., snack time, putting a baby to bed). Half of the children will be involved in a small group with one child who does not have disabilities and half will be in contexts including only children with disabilities. In Study 6 the investigation of interventions to facilitate joint referential states and language production will be conducted in large group free play situations in a structured classroom which is integrated with children who do not have disabilities or in one that includes only children with disabilities. An intensive collection of data on language use and sensorimotor skills will ensure comparability across the 276 subjects involved in these cross-sectional and longitudinal studies.

Products: In addition to the findings from the studies, an outcome of the project will be the development of an observational technology from which complex social process descriptions can be completed, analyzed, and used as the basis for suggestions on how to modify interactions with young children with disabilities. The studies will provide evidence about the relative effectiveness of new language intervention techniques for early childhood special educators who work with children who have both developmental and language delays.

An Exceptional Analysis of Teacher/Parent Mediated Interventions for Preschoolers with Behavioral Problems

GRANT NUMBER: H023C20172

Principal Investigator: **Kratochwill, Thomas**
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Beginning Date: 9/1/92
Ending Date: 8/31/97

Purpose: This research project will empirically investigate the efficacy of an expanded intervention approach involving behavioral consultation with parents and teachers of preschool children who are at risk for social-emotional difficulties

Method: Children experiencing social withdrawal and isolation and children experiencing conduct difficulties will be identified, treated, and monitored for approximately 3 to 5 years, from preschool through early elementary school transitions. Screening procedures and teacher referrals will identify 120 3-5 year-olds in Head Start programs. Children selected for the project will be assigned randomly to experimental and control conditions. In the experimental group, children will be further assigned randomly to baselines in a multiple baseline design. Consultants trained in behavioral consultation will work with parents and teachers to deliver a treatment package either for social withdrawal or for conduct disorders. Treatment programs will include social skills interventions supplemented with parent and teacher behavior management strategies. Consultants will also monitor students' progress as they make the transition into elementary school.

Products: In the area of practice, products will include: (1) treatment packages for socially withdrawn and mildly conduct disordered preschool students; (2) treatment integrity checklists and rating scales for monitoring the implementation of specific treatments; and (3) the roots of an effective preschool consultation and intervention model put in place in a county Head Start organization. Contributions to research will increase understanding of effects of conjoint behavioral consultation with teachers and parents.

Maximizing Effective Teacher-Mediated Intervention in Inclusive Preschools Implementing Developmentally Appropriate Practice

GRANT NUMBER: H023N40015

Principal Investigator: **McDonnell, Andrea P.**
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Beginning Date: 9/1/94
Ending Date: 8/31/97

Purpose: This project will develop and validate a package of teacher-mediated intervention strategies that can be effectively used to teach preschool children with developmental delays and disabilities. The children involved in the study are enrolled in inclusive preschool programs implementing developmentally appropriate practices.

Method: The studies combine single subject methodology, ecobehavioral measures, a national survey, and social validity measures to examine: (1) the effectiveness of the teacher-mediated intervention package across a variety of participants and target skills, specifically addressing skill acquisition, generalization, and maintenance; (2) the comparative effectiveness of the full teacher-mediated intervention package with two subcomponents of the package, including each interventionists' effect on child outcomes and their acceptability to the interventionist; (3) the effects of implementation of the package on subjects' level of engagement, interactions with peers, and selected variables within the classroom; (4) the extent to which a cumulative training package is effective in teaching preschool teachers to implement the package for the purpose of teaching skills to children with developmental disabilities; (5) perceptions of preschool teachers who have implemented the combined intervention package; and (6) the perceptions of parents of preschool children concerning the procedures and outcomes of intervention.

Products: Project results will be disseminated through publication of research reports to early childhood and special education journals, as well as presentations at national conferences. A cumulative Effective Teacher-Mediated Intervention training manual will also be developed and disseminated along with a trainers' guide.

Care giver-Child Social Communicative Interactions

GRANT NUMBER: H023B60029

Principal Investigators: **McEvoy, Mary/**
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Beginning Date: 9/1/96
Ending Date: 8/31/97

Purpose: To broaden the field of research regarding the social communicative interaction patterns between young children and their care givers.

Method: A total of 32 young children and their families will be recruited for this study in two cohorts: one recruited at 18 months of age and one recruited at 24 months of age. Two language samples will be collected for each subject, consisting of 30-minute audiotape recordings of natural language used by the family and the child. A standardized measure of general social development will be administered to each child to establish a baseline for development in each group; in addition, ratings of social interaction competence will be collected and a composite measure formed across three measurement sources.

Products: At the study's conclusion, staff will prepare an executive summary of results for dissemination to programs serving young children with disabilities, as well as participating parents and care givers. Staff will also prepare a final report for the funding agency. At least one article will be prepared describing project findings for publication in an appropriate journal.

Examining Child Care Providers' Attitudes Toward Substance Exposed Children and Their Families

GRANT NUMBER: H023B50051

Principal Investigator: **McMillen Sturtz, Janey L.**
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Beginning Date: 1/1/95
Ending Date: 12/31/96

Purpose: This project will examine child-care providers' self-perceived knowledge and skills, as well as their attitudes toward working with children who have been exposed to controlled substances and their families.

Method: Two surveys will be employed: Self Rating of Professionals' Knowledge and Skills and Attitudes Toward Special Populations Survey. The latter survey will also assess attitudes toward children with Down syndrome and chronically ill children for comparison purposes. These surveys will be administered to 100 child care providers recruited from public, private religious, and private secular child care settings prior to a two-hour training session. The purpose of the training session is to increase providers' knowledge of the physical, psychosocial, and educational impact of substance exposure on infants and toddlers. It is hypothesized that child care providers' attitudes toward working with substance-exposed families are poorer than toward working with children with chronic illness or Down syndrome; it is also hypothesized that these attitudes are related to self-perceived level of knowledge and skills in working with this population, and extent of prior training in issues surrounding children with such exposure.

Products: Examining care providers' attitudes toward families with a history of substance-abuse will be useful in assessing training needs, and in estimating the effectiveness of such training as a form of intervention, and a change agent in adjusting providers' attitudes. Project results will be disseminated to other practitioners and researchers through publication of articles in scientific journals and through presentations at national, state, and local conferences.

Teaching Styles in Early Intervention: Responsiveness and Directiveness

GRANT NUMBER: H023C40015

Principal Investigator: **McWilliam, Robin**
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Beginning Date: 10/1/94
Ending Date: 9/30/97

Purpose: This project will research the extent to which teachers of infants, toddlers, and preschoolers with disabilities should teach by: (1) responding to child initiations; (2) giving them directions; and (3) combining responsiveness and directiveness.

Method: Staff will conduct research in three stages to address relevant issues: (1) naturalistic inquiry in classrooms; (2) experimental inquiry in classrooms; and (3) experimental inquiry in one-on-one teaching situations. Ten teachers and their students (N=60: 20 with disabilities; 40 without disabilities) at a university child care center will be used in Study 1. The naturalistic inquiries will provide information about the current state of practice in a small sample of teachers and children, which will guide procedures and measurement systems for controlled experiments. The first controlled experiment, again with a small sample, will guide the development of procedures for a large field-based controlled experiment. Four substudies in the first 2 years will be implemented to conduct the naturalistic inquiry. First, the effects of teaching style on child engagement will be investigated. Second, the antecedents of teaching styles will be studied. Third, the long-term outcomes differentiated by teaching style will be researched. Fourth, the classroom atmosphere will be investigated with qualitative procedures. The second major study, conducted in Year 3, will consist of training teachers to use three different styles and analyzing child engagement. The third major study, conducted in Years 4 and 5, will investigate engagement and task performance of children in teacher-child dyads exposed to specific teaching styles.

Products: The results of this research will expand the knowledge base regarding the relationship between teaching and child behavior in the field of early intervention, provide information of use to teachers and parents as they implement interventions, and guide preservice and in service efforts to train teachers to use developmentally appropriate and effective methods.

Early Identification of Children At Risk for Special Education Placement

GRANT NUMBER: H023B60002

Principal Investigators: **Mulvihill, Beverly/**
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Beginning Date: 9/1/96
Ending Date: 8/30/97

Purpose: To develop risk profiles of child and family characteristics to assist in early and effective identification of children at risk for placement in special education.

Method: The proposed study will utilize quantitative record linkage methodology and qualitative family interviews. Data will be gathered for 258 special education students in the first grade in the 1995-96 school year in one Alabama local education agency. Children's birth records will be linked to school records to determine which variables early in the child's life (such as maternal education level, birth weight, and APGAR scores) place children at risk for special education placement. A case-control design and analysis will be used to identify risk factors for special education placement that are observable at birth. Strength of associations will be expressed in terms of odds ratios obtained by logistic regression analysis using age, gender, and race-matched children in general education as a reference group.

Products: Project findings will be disseminated to school officials, teachers, and parents through a training session provided by project staff. These findings will also be presented at a national research meeting.

Studies of Infants and Toddlers Prenatally Exposed to Cocaine

GRANT NUMBER: H023C30079

Principal Investigator: **Scott, Keith G.**
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Beginning Date: 7/1/93
Ending Date: 6/30/98

Purpose: This project will investigate the effectiveness of several intervention models for serving infants and toddlers prenatally exposed to cocaine.

Method: The project will include 3 intervention models: (1) a center-based program that will provide participating children with 25 hours per week of early intervention services with transportation provided; (2) a home program which will provide participants with 3 hours per week of home visits; and (3) a follow-up program which will not include any planned intervention programs. Children in all three groups will receive medical monitoring and developmental assessments. A parallel qualitative research effort will employ a case study methodology to provide a in-depth analysis of all three models. Three further studies will include: (1) a comparison of motor intervention models; (2) an investigation of play and language development; and (3) a study of effects of early intervention models on the emergence of nonverbal communication. Costs of intervention models will also be studied.

Products: Expected outcomes of the field-initiated research effort will include definitive knowledge of the early development of children prenatally exposed to cocaine, the effects of three intervention service models on child outcomes, and the cost effectiveness of the three models.

Validation and Field Trial of a Multiple Gating Approach to Preschool Screening for Behavior Problems

GRANT NUMBER: H023C30017

Principal Investigator: **Severson, Herbert**
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541-484-2123

Beginning Date: 10/1/93
Ending Date: 9/30/97

Purpose: This research will assess the psychometric characteristics and validity of a multiple gating screening procedure designed to identify at-risk preschool children, ages 3 through 5.

Method: Researchers have developed a screening system known as Preschool Screening for Behavior Problems (PSBP) that uses multiple gating. Procedures used by PSBP consist of three interrelated stages cross-validating results. Stage one involves preschool teachers ranking students using objective criteria for both externalizing and internalizing behavior dimensions. Children identified in this stage are then targeted for teacher-completed behavior rating measures in the second stage. Students exceeding normative criteria on stage two measures pass this gate and are assessed further on stage three behavioral observation measures. These direct observations will be recorded in the classroom. Six separate studies in the first year will establish the reliability and validity of the PSBP process. In the second year researchers will establish normative databases, cutoff scores, and decision criteria for stage two rating scales and stage three observational measures. In year three the efficacy and social validity of the PSBP will be assessed. The fourth and final project year will focus on disseminating results.

Products: This research will produce systematic, cost-effective procedures and instruments for the early identification of preschool students exhibiting behavioral profiles that put them at risk for more severe behavior disorders. The validated PSBP will be a psychometrically sound, field tested procedure that can be easily implemented by preschool personnel.

Evaluation of Part H Child Find

GRANT NUMBER: H159A40001

Principal Investigator: **Shapiro, Beppie**
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Beginning Date: 1/1/95
Ending Date: 12/31/96

Purpose: This project will evaluate the effectiveness of child find operations in Hawaii, what gaps and barriers may be impeding success, and how the child find component could be strengthened.

Method: Data from recent years will be collected from existing agency records. In an effort to identify children "missed" by child find, records will be studied by sampling approximately 400 of the 4000 children certified eligible each year. Impact data will be collected through surveys and interviews. The coordinating council (HEICC) and the Evaluation Advisory Group will create initial standards against which to evaluate the effectiveness of child find. Interviews, focus groups, and surveys of families, program staff and administrators will identify gaps and barriers to a more effective child find program. Samples of 40 families will be drawn from program records. A Project Advisory Group will consider these identified gaps and barriers, and describe ways to improve policy and practice. Necessary resources and impacts will be studied with input from program and families.

Products: Information about Hawaii's process and service utilization will be summarized in a report that will provide a basis of comparison for other states as they generate their own data. A Guide for Conducting Evaluations of Part H Child Find will be produced. The guide will describe a model of evaluation of child find that can be adopted to examine and improve any state's system of services.

Project VOCABULARY: Understanding Early Growth and Remediation Effects for Students with Disabilities or At Risk of Reading Failure

GRANT NUMBER: H023C50121

Principal Investigator: **Simmons, Deborah**
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Beginning Date: 9/15/95
Ending Date: 9/14/00

Purpose: The project will increase understanding of the early vocabulary growth of children with disabilities or at risk of reading failure; and investigate efficient means of remediating vocabulary delay.

Method: Strand I (Measuring and Monitoring Vocabulary Growth) consists of four studies designed to develop and validate a classroom-based measure of vocabulary to monitor growth over the critical period of kindergarten and first grade. The relationship between early vocabulary growth and reading acquisition will also be examined. Strand II (Evaluating the Effects of Strategic Intervention) is comprised of two studies examining the independent and combined effects of incidental and explicit methods of vocabulary learning. This strand of research will further investigate the level and type of intervention necessary to promote and sustain vocabulary growth in students with disabilities or at risk of reading failure. Research will be conducted over a five-year period. Two distinct geographic regions will be included to increase the generalizability of findings. Twenty-four to thirty kinder- garten and first grade teachers will participate in each year of the project. Each teacher will nominate four students with learning disabilities or vocabulary delay and four average achieving students. Vocabulary performance will be correlated with the Peabody Picture Vocabulary Test-Revised. Published norm-referenced tests will be used to assess receptive and expressive vocabulary. A classroom-based measure of vocabulary knowledge will be used to assess the depth and breadth of words sampled from project classrooms. The Language Sample Analysis will be used to assess important vocabulary indices emitted by students during natural speech, including mean length of utterance, number of different words, and total number of words. Finally, measures of reading fluency and comprehension will be used to assess reading achievement.

Products: Anticipated outcomes include: a relevant and useful measure for gauging vocabulary growth in children with disabilities or vocabulary delay; more thorough understanding of the vocabulary knowledge of children in relation to curricular expectations; validated methods to enhance vocabulary growth; and methods of strengthening and supporting vocabulary growth over time. These outcomes will be disseminated through research reports, in service workshops, curricular materials, and a classroom-based index of vocabulary growth.

Social Relationship Development in Community Contexts for Young Children with Severe Disabilities

GRANT NUMBER: H023C50169

Principal Investigator: **Strain, S. Phillip**
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Beginning Date: 7/1/95
Ending Date: 6/30/98

Purpose: This project will conduct research to investigate the social relationships experienced by young children with severe disabilities.

Method: The project will undertake a series of studies. The studies will focus on: (1) demonstrating the efficacy of intensive, longitudinally-applied intervention tactics; (2) understanding how young typical children's attitudes and behaviors can be made more facilitative of relationship-building with peers who have disabilities; and (3) determining how and why consumers adopt and use effective instructional practices in the social relationship domain. The first study will provide community-based social relationship intervention for young children with autism. Study Two will include a psychometric study of existing methodology for assessing the presence or absence of preschoolers' stereotyped views of persons with disabilities in community contexts. An intervention study will then aim at maximizing positive and supportive attitudes and behaviors as expressed by young children, who are not disabled, in community settings. The third study will solicit the concerns of potential adopters of intervention plans regarding the issues, incentives, and disincentives associated with adopting best practices. This assessment information will be followed by targeting community providers for adoption of the interventions developed in the first two studies.

Products: The project will develop: (1) empirically-based articles/chapters; (2) conceptual articles/chapters; (3) white papers synthesizing related policy issues; (4) intervention manuals for direct-line staff; (5) news segments; and (6) yearly monographs on the state of practice related to relationship-building interventions.

Specific Language Impairment: Language and Generalization

GRANT NUMBER: H023C40118

Principal Investigator: **Swisher, Linda**
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Beginning Date: 10/1/94
Ending Date: 9/30/97

Purpose: This project will attempt to gain a better understanding the poor bound-morpheme acquisition (BMA) of children with specific language impairment (SLI) in preschool students through a variety of bound-morpheme learning tasks.

Method: A variety of bound-morpheme learning tasks will be administered to children with SLI (N=120) and children with normal language development (N=120), 40 each per project year. The task variations will be designed to explore the three components of the BMA process: vocabulary learning, bound-morpheme learning, and bound-morpheme generalization. In Project Year 1, the effects of vocabulary learning on bound-morpheme learning and generalization will be assessed. In Project Year 2, the effects of phonological versus semantic enhancements on bound-morpheme learning and generalization will be examined. In Project Year 3, the effects on generalization of reducing vocabulary load as well as emphasizing the affix versus emphasizing the contrast between affixed and unaffixed forms will be investigated. In each of the three project years, a set of associated tasks that assess skills likely to be pertinent to children's BMA performance will also be administered. These tasks investigate sentence memory, nonverbal rule induction, utilization of known bound-morphemes and phonological and semantic similarity effects. Statistical techniques, such as multiple regression analyses, will be used to examine the results of the bound-morpheme learning task, as well as their relationship to those of the associated tasks.

Products: The combined results of these studies will clarify whether theories of storage/access deficits or rule-induction deficits better predict subject-group differences. In addition, the results will determine which components of the BMA process (vocabulary learning, bound-morpheme learning, and/or bound-morpheme generalization) should be the focus of clinical intervention.

Second Generation Research in Early Intervention: Long-Term Outcomes in Children and Their Families

GRANT NUMBER: H023C50171

Principal Investigator: **Trivette, Carol**
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Beginning Date: 10/1/95
Ending Date: 9/30/00

Purpose: The project will conduct a second generation research study to examine the long-term effects of early intervention on children and their families.

Method: This study will involve the long-term follow-up of 300+ children and their families who participated in the Family, Infant, and Preschool Program (a family-centered model) between 1981 and 1985. Data on participating children, now between 14 and 16 years of age, has already been collected. Multiple regression analyses by sets will be the principal means of assessing long-term outcomes, and a regression analysis by sets will be used to relate several sets of independent variables to the dependent variable of interest. Independent variables will include: parent and family characteristics; child characteristics; social support factors; child diagnosis/development; and intervention features. Long term outcomes variables will include: child's social adaptive level; independent behavior; school achievement; intelligence quotient; school placement; mainstreaming outcomes; parent well-being, family well-being; level of social support; parental sense of control over services; and parental satisfaction with services.

Products: This investigation will yield the first long-term follow-up data on family-centered intervention practices. A nontechnical report will be disseminated to state and federal legislators, State Education Agency (SEA) staff in all 50 states, the administrators of local public school systems and other agencies responsible for early intervention services. Findings will also be published in newsletters serving primarily administrative and policy-making audiences. In addition, research findings will be submitted to a variety of journals and conferences serving both researchers and educators.

Longitudinal Study of the Impact of Early Intervention Services on Infants and Toddlers with Disabilities

GRANT NUMBER: H159E50001

Principal Investigator: **Wagner, Mary**
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Beginning Date: 9/30/95
Ending Date: 9/30/00

Purpose: The project will describe the characteristics, services, and outcomes of a nationally representative sample of infants, toddlers, and families who participate in Part H early intervention programs and examine the relationships between family and service characteristics and outcome achieved for children and families.

Method: This study will document the characteristics of 3,300 children and their families who newly enroll in Part H early intervention services between July 1997 and June 1998. The sample of children will be selected from three to five counties in each of 20 states throughout the nation. Telephone interviews with parents will be conducted upon enrollment and annually thereafter as long as children continue to receive Part H services. Interviews also will be conducted when children are 36 and 60 months of age. Interviews will record child and family demographics, the etiology of children's disabilities, parental assessments of children's functional abilities and family strengths and function, and parental assessments of services and service satisfaction. Repeated measurement of these factors will be used to track the changes in child and family outcomes over time. Service records will be obtained every 6 months from the service coordinator or other informant best able to report the Part H services the sample families receive. Questionnaires regarding Part H services also will be completed by service providers and program directors. Taken together, data regarding services will assess the provider, nature, quantity, quality, and cost of Part H services as they change during a family's experience with Part H services. Information on behavior and services in preschool special education and kindergarten will be collected as children age and enter new educational settings. In addition to describing these aspects of children, families, and services, analyses will explore the relationships between variations in Part H services and delivery systems and variations in child and family outcomes.

Products: Project findings will be disseminated to potential audiences, including policy makers, federal, state, and local administrators, researchers, practitioners, parents of children with disabilities, advocates, and professional organizations. Findings will be disseminated in several formats, including: annual comprehensive reports at the end of Years 3, 4, and 5; brief reports in each of these years; short summaries of key findings; articles submitted for publication in professional journals; and conference presentations and briefings.

Parents' Involvement in Their Infants' and Toddlers' Assessment: An Experimental Scale to Demonstrate the Reliability and Validity of Parents' Ratings of Their Children's Development

GRANT NUMBER: H023B60013

Principal Investigators: **Watkins, Marley/**
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Beginning Date: 9/1/96
Ending Date: 8/31/97

Purpose: To develop an experimental scale showing evidence of parents' abilities to accurately assess and report their children's development.

Method: A statewide pilot test will be conducted with 150 families whose infants and toddlers are receiving early intervention services. Results of this survey will be used to identify key characteristics of parental rating scales that effectively involve parents. Content validity will be determined by a panel of experts. Construct validity will be determined by calculating each item's correlation with the total score at each age that the item was administered. Concurrent validity will be examined by administering the Bayley Scales of Infant Development-II individually to all children participating in the study.

Products: Results will be disseminated via feedback to participating agencies, conference presentations, a summary of findings, an article for journal publication, and a final report to the Department of Education.

The Effects of a Writing Intervention on the Development of Phonological Skills in Primary Grade Children with Learning and Reading Disabilities

GRANT NUMBER: H023B50024

Principal Investigator: **Wolery, Ruth A.**
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Beginning Date: 1/1/95
Ending Date: 10/31/96

Purpose: The project will provide and evaluate results of instruction emphasizing both phonological and sound-to-letter skills while students are engaged at a meaningful task rather than a skill and drill practice task.

Method: Students with learning disabilities in first through third grades (N=16-20) will be given opportunities to use the writing process as a means of developing both phonology and letter-sound skills. Students will write daily in their own journals and will be encouraged to attend to the phonology of the language system by using invented spellings for words they cannot spell correctly. It is expected that students will make gains in phonological awareness, spelling, and reading skills. A multiple-probe, single-subject research design will be employed, and curriculum-based measures in phonological awareness, spelling, and reading will be taken weekly. Multiple probe measures will be graphed to monitor ongoing progress, and will be shared with students' teachers. In addition, special education teachers will be interviewed three times to examine their perceptions about using the writing process as a literacy intervention.

Products: An information packet will be developed for dissemination to special education teachers and teacher trainers. The packet will provide useful information about the reading process and will suggest ways to use writing activities to facilitate development of reading skills. Samples from study participants' journal writings and teacher interviews will be featured in the packet.

Generalized, Transitional, and Longitudinal Effects of Prelinguistic Communication Intervention

GRANT NUMBER: H023C20152

Principal Investigator: **Yoder, Paul J.**
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Beginning Date: 1/1/93
Ending Date: 12/31/97

Purpose: This project will investigate effects of prelinguistic communication intervention on: (1) children's generalized prelinguistic communication skills; (2) parents' use of behaviors that facilitate children's language development; and (3) children's language development and linguistic communication.

Method: Sixty children with communication delays who are at risk for related disabilities will be seen five times over a 2-year period. Half of the subjects will serve as a contrast group, while the other half receives staff-implemented intervention. Treatment group subjects will remain in intervention for 6 months or until they meet five mastery criteria. Treatment goals include: action and vocal imitation of familiar and unfamiliar models, participation in social routines, requesting, commenting, and comprehension and expression of vocabulary that encodes the key word for what the child was communicating nonverbally. Intervention techniques will include contingent imitation, scaffolded modeling, environmental arrangement, and violations of routines.

Products: If parents in the experimental group use more behaviors facilitating language development, such findings will support the important bidirectional assumption of the family-systems approach to intervention and the transactional theory of development, two theoretical models undergirding Public Law 99-457, Part H. After determining the effectiveness of intervention, results and validated intervention procedures will be disseminated to practitioners and researchers.

SECTION 4

INSTRUCTIONAL EFFECTIVENESS, MODELS, AND LEARNING

Auditory Training for Spatial Orientation in Children with Visual Impairment

GRANT NUMBER: H023C40107

Principal Investigator: **Ashmead, Dan**
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Beginning Date: 9/1/94
Ending Date: 8/31/97

Purpose: The project will study how children with visual impairments can use naturally occurring auditory information to maintain their spatial orientation while moving about.

Method: For the first project area, staff will conduct a functional assessment of sound localization. A practical, standardized test for the precision of sound localization will be developed for use by mobility instructors. This test will be assessed for its ability to predict problems with travel skills. For the second component, staff will study the guidance of locomotion via sound fields. A training procedure will be developed to enhance sensitivity to reflected sound and "sound shadows" in a safe environment allowing repeated practice. The procedure will be standardized and made available to mobility instructors using inexpensive materials. For the third component, staff will focus on spatial orientation from dynamic listening. A procedure will be developed for training children about room layout by listening to moving sound sources. The procedure draws on recent advances in audio recording for three-dimensional playback. The sample will be children with visual impairments (N=200) and children without visual impairments (N=16) aged 6 to 12 years. For the assessment, the 16 children without visual impairments will participate. The classroom-based procedure will use portable equipment designed to be easily moved, and will produce computer-generated speech noise. The testing procedure will require children to judge the position of a sound relative to a reference position that is straight ahead at ear level. Staff will later use results of these studies to explore a procedure for making an audio tape recording that will portray the spatial layout of the training room when played back over earphones.

Products: This project will produce two standardized assessment and intervention procedures to contribute to the orientation and mobility training of children with visual impairments. Results will be published in professional journals, workshops, and manuals.

The Development and Evaluation of an Early Intervention Program for Nonreaders and Nonwriters

GRANT NUMBER: H023C50089

Principal Investigator: **Englert, Carol**
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Beginning Date: 8/16/95
Ending Date: 8/15/99

Purpose: This project will collaborate with teachers on the development, implementation, and evaluation of an integrated curricular approach designed to teach the self-regulated use of comprehension and composition skills and strategies to primary grade students with mild disabilities. The project will focus specifically on those who are nonconventional readers and writers in grades 1-4.

Method: In the first study, comparative and normative data will be collected on primary-grade students with mild disabilities in order to provide baseline information for measuring effects of the experimental curriculum. Over the course of three years, 13 teachers and their 130 students with mild disabilities will participate. Analyses will focus on the short-term and multi-year effects of the curricular approach on teacher's instructional practices, and their special education students' reading and writing achievement, and metacognitive and strategy knowledge. Staff will also study whether gaps between students in the experimental group and their nondisabled peers diminish over time. In the second study, the experimental curricular approach will be embedded in language arts and content area subjects to evaluate the effectiveness of the curriculum when it is presented as part of the regular education curriculum. Four regular education teachers in the primary grades, their 16 main streamed students with mild disabilities, and all associated regular education students will participate in this study. The performance of main streamed students will be contrasted with that of students who continue to receive the curricular approach in special education settings. Pretest and posttest data will be analyzed to determine the effects of the experimental curriculum on the achievement of students with learning disabilities, metacognitive and strategy knowledge, and self-perceived competence. Specific consideration will be given to data providing information on the extent to which cognitive strategies in the experimental curriculum can be incorporated as part of the "regular" curriculum, and the relative effectiveness of the curriculum employed in regular education versus special education settings.

The Development and Evaluation of an Early Intervention Program for Nonreaders and Nonwriters *(cont.)*

Products: At the conclusion of this research project, a disseminable curricular approach will be available to advance teachers' knowledge and practice related to the improvement of literacy instruction and the learning of young students with mild disabilities. Annual reports will be prepared and disseminated to academicians and teaching professionals. An ongoing series of executive summaries will be distributed to administrators and other key personnel of schools in the local service area. Project staff will be present findings through conference presentations and journal articles. They will also be available for consultation with local school districts.

PROMISE: Practitioners and Researchers Orchestrating Model Innovations to Strengthen Education

GRANT NUMBER: H023G50005

Principal Investigator: **Fuchs, Lynn/ Fuchs, Douglas**
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Beginning Date: 9/1/95
Ending Date: 8/31/99

Purpose: This project will develop, validate, and disseminate a model for practitioner-researcher collaboration and staff development, resulting in cutting-edge, successful practices that are implemented and sustained in schools.

Method: Research will conduct two "generations" of research activity aimed at developing instructional procedures that help teachers accommodate students with disabilities during mainstream reading activity. In Years 1 and 2, staff will implement the PROMISE collaborative research model with one school and a traditional "expert" model with a second school. Both qualitative and quantitative methods will be used to examine the effects of these two contrasting research models on teacher beliefs and values, school culture, teacher practice, fidelity of treatment implementation, and student outcomes. In Years 3 and 4, staff will study the effects of the research model in participating schools in terms of whether (and if so, how long) these innovations are sustained. In addition, staff will replicate the process initiated in Years 1 and 2 and contrast collaborative versus expert models in two additional schools. Again, the project will generate information about the efficacy of further refined reading instruction. In replication of Year 1 and 2 research, teachers in the first generation of schools will be responsible for staff development in the second generation of schools.

Products: PROMISE is expected to have national impact through the development of otherwise unavailable products and knowledge including: (1) the creation of a model for school-university research collaboration that bridges between practice and research; (2) a manual and videotape designed to disseminate this model; (3) validated methods for including students with disabilities in general education for reading instruction; (4) a training manual and videotape explicating and illustrating the reading methods; (5) research reports on the relative effects of collaborative versus expert research models, on reading treatment components, and on specifying a model for school-university research partnerships.

Project BRIDGE: Bridging Research and Instruction through Dynamic and Ground Exchange

GRANT NUMBER: H023G50021

Principal Investigators: **Gallup, Susan McNair/ Kameenui, Edward**
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Springfield School District #19
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Beginning Date: 9/1/95
Ending Date: 8/31/99

Purpose: The project will develop, field-test, and evaluate a model of elementary literacy education that is: (1) considerate of and sensitive to the regularities, routines, and resources of individual schools; (2) grounded in the dynamic and equitable exchange between professionals practitioners and researchers; (3) sufficiently defined to generalize to other schools and produce replicable findings; and (4) sustainable by faculty most proximal and responsible for bringing about change.

Method: Research will be conducted over a four-year period. Forty general education teachers, 8-10 special education teachers, and four school principals will participate along with four university faculty. All students with identified reading disabilities, two children identified as at risk for reading failure, and two average-achieving peers will participate from each classroom for a projected total of 280 - 300 children over the four year funding period. Each school will establish two teams per school that will be responsible for developing specific mechanisms and strategies of the BRIDGE model for their respective sites. One of these teams will represent K - 2 classes, the other grades 3 - 5. A modified multiple-case replication design will be used to evaluate the effects and sustainability of the model. School culture, climate, and student literacy achievement, engagement, and attitudes will be assessed through a framework of measures to be determined at the local school level. In addition to technical adequacy criteria, these measures will be proximal to school culture and climate and will provide a cadre of common assessment instruments across schools.

Products: Research reports from the first two project years will examine the reading literacy growth of students with disabilities within the context of several bridging mechanisms and options at the school building level. Curricular materials and reports from Years 3 and 4 will provide the theoretical base and practical implications for designing and implementing a model for bridging research and practice that benefits students with disabilities and those at risk for reading and academic failure.

The Role of Phonological Processing on the Success of Learning Phonological Awareness Skills in Children Identified as At Risk for Learning Disabilities

GRANT NUMBER: H023B60004

Principal Investigators: **Good, Roland H., III/**
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541-346-2145

Beginning Date: 9/1/96
Ending Date: 8/31/97

Purpose: To identify variables that explain why certain children do not respond to pre-reading instruction with a significant increase in pre-reading skills.

Method: One hundred kindergartners from the Springfield School District in Oregon will be selected to participate, and will be randomly assigned to a treatment group or control group, stratified by a pretest measure of phonological awareness. Prior to instruction, children will be given pretest measures of phonological processing, verbal ability, and nonverbal IQ. During the treatment phase, estimates of engagement during instruction will be obtained. Treatment implementation will include 2 weeks of baseline, followed by 12 weeks of instruction and 1 week of follow-up. The effects of phonological processing, verbal ability, nonverbal IQ, and engagement on the slope of learning of phonological awareness skills will be examined, along with method of instruction.

Products: A teacher handbook and the general project handbook will be disseminated at conferences, guest lectures, and in-service consultations. The final project report, research papers, and other publications of project outcomes will be disseminated through professional conferences, inservice consultations, and publication in professional journals.

The Effect of Three Levels of Curricular Modifications on Vocabulary Knowledge and Comprehension of Students with Learning Disabilities in Content-Area Classrooms

GRANT NUMBER: H023B60043

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Beginning Date: 7/1/96
Ending Date: 6/30/97

Purpose: To develop guidelines for teachers of students with learning disabilities (LD) to enhance existing curricular materials based on principles of effective vocabulary instruction derived from research with general education students.

Method: Three levels of interventions will be compared to determine the most effective and parsimonious enhancements to existing curricular materials: (a) the existing commercial curriculum; (b) a minimally modified version of the curriculum that combines definitional and contextual methods; and a substantially modified version of the curriculum combining definitional and contextual methods, providing opportunities for "deep" processing of words, and giving multiple exposures of words. Approximately 90 fifth-grade students from three classrooms in a Pacific Northwest elementary school will participate in this study, including approximately 12 students with learning disabilities distributed equally across classrooms. The first six to eight weeks of the study will consist of vocabulary interventions, followed by two weeks of follow-up monitoring. Student performance will be assessed using a multiple choice test, a production test, and a test of passage comprehension. In addition, student progress will be monitored weekly using vocabulary probes. The performance of students with LD will also be analyzed descriptively.

Products: Manuscripts describing research results will be written and submitted for publication in research-oriented special education journals as well as practitioner-read journals. Conference presentations will be delivered to researchers, practitioners, and parents at local, regional, and national levels. A training manual will be prepared for dissemination and use by teachers.

PROJECT RILT

GRANT NUMBER: H023G50033

Beginning Date: 10/1/95
Ending Date: 9/30/99

Principal Investigator: **Logan, Kent R.**
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Purpose: This project will develop, implement, and evaluate the Research Instructional Lead Teacher (RILT) system, a model for bridging the gap between research and practice in the education of children with disabilities in general education classrooms.

Method: The RILT model will address implementing effective, research-based instructional strategies for teaching students with learning disabilities, mild behavior disorders, and students with mild, moderate, severe, and profound disabilities in regular education elementary classrooms. Using an AB design, three time series experiments will be conducted to assess: (1) procedural reliability of implementation of the RILT model, (2) procedural reliability of teacher implementation of selected strategies, (3) learning of students with disabilities during implementation of the RILT process, (4) learning of students without disabilities who receive remedial educational programs, and (5) teacher instructional and student responding (ecobehavioral) variables during implementation. Three ethnographic case studies will be conducted from the emic perspective to identify influential belief systems impacting selection and use of instructional strategies. Five studies using single subject experimental designs will be conducted to study the effectiveness of RILT. Results of a school climate survey will be examined to determine differences (if any) on variables measured in schools after participation in RILT. The RILT model will then be replicated in another school using local resources and action research data collection procedures.

Products: The project will develop: (1) an RILT model implementation module describing module components, roles of key research teachers, procedures for implementation and training, and results of implementation in various settings; (2) "teacher-friendly" intervention modules describing research-based interventions, step-by-step procedures for implementing interventions in general education classrooms, adaptations made in different classrooms, and manageable data collection procedures. The project will also develop disseminable materials for professional journals and conferences. These reports and modules will be made available to a variety of professional institutes, clearinghouses, and technical assistance organizations.

Visual Involvement in Literacy: Reading and Discussing Books with 3- to 8-Year Old Students Who are Deaf and Hard-of Hearing

GRANT NUMBER: H023N40040

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Beginning Date: 8/1/94
Ending Date: 7/31/97

Purpose: The purpose of this project is to perform a sociolinguistic study of successful involvement strategies in a visual modality that are used by teachers of varying backgrounds and styles. The subject of the study will be equally divided between both hearing and deaf users of Manually Coded English (MCE) and American Sign Language (ASL).

Method: The project initially involves transcription and analysis of 10 videotaped reading activities by teachers and 10 videotaped discussion activities by teachers and students. First, five teachers (three hearing and two deaf) will be asked to read with their class one of two picture books, "Too Much Noise," which uses many words connected with sounds. Second, they shall be asked to involve their students in discussing the first book after hearing the story. The same five teachers will then read a second book, "Five Chinese Brothers," which uses many words connected with vision, again followed by a discussion of the story with the class. The total number of students will be 52, and students shall be videotaped as well.

Products: This project will provide an empirical basis for the transcription and analysis of successful involvement strategies; the transcription and analysis of teachers' and students' interaction in discussion; and an understanding of how the involvement strategies are impacted by the teacher's target language and audiological background. The result will be a research-based model for developing inservice training for teachers, parents, and others who wish to read and discuss with students, to develop or enhance techniques for creating interpersonal involvement as well as more involvement in discussion in a visual modality.

Is Learning Disabilities Nothing More than an Oversophistication of Low Achievement? A Quantitative and A Qualitative Synthesis

GRANT NUMBER: H023E50004

Principal Investigator: **Mathes, Patricia**
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Beginning Date: 9/1/95
Ending Date: 8/31/97

Purpose: The project will develop a definitive statement of whether, and to what extent, students with learning disabilities differ from peers who are low-achieving and who do not have learning disabilities.

Method: A meta-analysis will be conducted, addressing the following questions: (1) In terms of standard deviations, how does performance by low-achievers compare to that of students with learning disabilities? (2) What magnitude of difference separates the two groups in terms of social acceptance and classroom behavior? and (3) Are student grade levels, race, and socioeconomic factors relevant to intergroup differences? A comprehensive review of published and unpublished literature will be conducted. These studies will then be coded along various methodological and demographic dimensions and critiqued for technical quality. The staff will then calculate individual effect sizes for comparisons between the two groups of students (learning disabled/low achieving) and analyze individual effect sizes along dimensions such as academic performance, achievement/performance discrepancies, social acceptance, and school behavior. In addition to the meta-analysis, staff will analyze a subset of studies meeting the highest standards of scientific rigor as part of a qualitative, best-evidence synthesis approach. Finally, findings will be submitted to a panel of experts for formative feedback, followed by further analyses based on their feedback.

Products: Project findings will be made available as quickly as possible through submission of prepublication reports to the Educational Resource Information Center (ERIC). Results will also be published in relevant journals, including a possible special issue on the subject to include both the meta-analysis and the best evidence synthesis. The final report will be published as a monograph, and presentations will be made to scholarly audiences at national gatherings.

Teaching Literacy Skills to At-Risk and Learning Disabled Children: Writing Intervention with a Dialogue Journal Task

GRANT NUMBER: H023B60031

Principal Investigators: **McMahon, Colleen/**
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Beginning Date: 10/1/96
Ending Date: 9/30/97

Purpose: To increase the sophistication as well as the quantity of written expression across levels of disabilities and cultural literacy experiences.

Method: Approximately 120 subjects will be chosen from second grade classrooms throughout an urban school district in Southern California. The study will focus on the effects of a dialogue journal activity for four groups of children: (a) students with identified learning disabilities as defined by the criteria used for placement in the school district (N=30); (b) students with Limited English Proficiency (N=30); students identified as "slow" or low achievers by their teachers (N=30); and (d) normally achieving students as identified by their teachers (N=30). Students will not be informed as to which group they have been placed in and instruction will be the same for all groups. Teachers will receive 3 hours of training in dialogue journal techniques, and will offer their opinions of the method. Outcomes will be assessed in terms of a Writing Development Record, oral language recordings, meaning elements, quantity of writing, and curriculum-based measurement factors.

Products: Project findings will be disseminated to the research community through journal articles, conference presentations, book chapters, and project reports. At the district level, findings regarding the merits of the proposed literacy intervention will be disseminated via the California Educational Research Cooperative.

A Comparison of Social Skills Training Techniques To Promote the Inclusion of Special Education African American and Anglo Students into Regular Classrooms

GRANT NUMBER: H023B60040

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Beginning Date: 10/1/96
Ending Date: 9/30/97

Purpose: To compare the effectiveness of peer modeling and self modeling, and to determine which intervention is more effective in promoting acquisition, maintenance, and generalization of skills.

Method: Twenty African American and 20 Anglo main streamed students with mild disabilities will be recruited from various elementary schools in southern California. These groups will be compared to each other and to a control waiting list group. In addition, to analyze treatment effects at the individual level, a single case experimental design will also be used with six students from the peer-modeling condition and six students from the self-modeling condition. The peer modeling intervention will feature videotaping of a classmate with no deficits in peer-preferred social skills performing 10 minutes of academically appropriate behavior per core class (with teachers praising the students for appropriate behavior). This videotape will be shown to study participants as an example of the behavior they should emulate. The procedure for the self-modeling intervention will have participants themselves being videotaped and being shown their own tapes as a model of exemplary behavior.

Products: Findings of the project will be disseminated through research reports; poster and paper presentations at local, state, regional, and national conferences; and personal communications with interested scholars. The investigators will also submit articles for publication in professional journals, and findings will be reported to participating schools.

Investigation of Sequence of Reciprocal Interactions within Behavioral Episodes of Problem Behavior

GRANT NUMBER: H023N50004

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Beginning Date: 9/1/95
Ending Date: 8/31/98

Purpose: The project will develop and validate a conceptual model of the sequence of reciprocal interactions within behavioral episodes (explosive escalating sequence of behaviors) of problem behavior.

Method: Project staff anticipate gathering data on 500 to 600 behavioral episodes of problem behavior exhibited by a stratified sample of 100 to 110 elementary-aged students diagnosed as seriously behaviorally disabled, learning disabled, and/or developmentally disabled. Prior to direct observations of behavioral episodes, a scatterplot analysis will be completed by educators on each student to identify those times in which there is a high probability that behavioral episodes will occur. Data will be summarized descriptively for the entire sample through simple univariate statistics. Logistic regression techniques will be conducted to explicate the sequence of reciprocal interactions within behavioral episodes of problem behavior. These techniques will also be used to explore the conditional probabilities among the behaviors associated with each interaction.

Products: The project expects to develop products such as: presentations at national, state and regional conferences; professional articles, book chapters, and manuscripts; and dissemination through electronic networks to reach parent and practitioner networks.

Looking at Intervention Factors with Teachers: Project LIFT

GRANT NUMBER: H023B60038

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Beginning Date: 7/1/96
Ending Date: 6/30/97

Purpose: To assess the relationships among intervention acceptability, intervention integrity, and the effectiveness of classroom interventions implemented in schools with young students.

Method: This study will develop tools to measure intervention acceptability and integrity. The study will also validate these assessment tools by comparing results obtained with both direct observation and child outcome measures. Major activities will include development of: (a) a teacher interview to assess intervention acceptability, (b) a self-report checklist and direct observation instrument to measure intervention integrity, and a survey regarding intervention acceptability and integrity. Study One will focus on actual intervention efforts of specific student-teacher dyads to measure intervention acceptability via individual interview, as well as measuring integrity via direct observation and a self-report checklist. This study will include 15 teachers working in Iowa public schools. Study Two will examine the question of intervention acceptability via a survey of 150 elementary teachers in several states.

Products: Investigators will share project findings with groups in the state to inform them of how their results may affect recommended practices. National presentations are planned to inform other agencies, organizations, and universities of project findings, and to contribute to the knowledge base to guide future research. Articles describing project findings and their applications to the field will be submitted to a number of professional journals.

Effects of the Pause Procedure With or Without Peer Discussion on the Recall and Lecture Notes of Secondary Students with Learning Disabilities and Limited English Proficiency

GRANT NUMBER: H023B60027

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Beginning Date: 9/1/96
Ending Date: 8/31/97

Purpose: To investigate the efficacy of the pause procedure for use with secondary limited English proficiency (LEP) students with learning disabilities (LD).

Method: Three randomized groups of 21 LEP/LD students each will be drawn from each of three high schools in a south Texas border city and assigned to no-pause control, pause-only, and pause-with-discussion groups. Students will view and take notes on the same videotaped lecture and complete immediate and long-term recall measures. Multiple regression using planned comparisons of control and treatment groups with matched characteristics on language functioning and a pre-test for content as a covariate will be used to produce analyses of covariance between: (a) the control group and the two combined treatment groups, and (b) the two treatments (pause-only against pause-with-peer-discussion) separately.

Products: Project findings will be submitted for presentation at state and national meetings of special education, regular education, and bilingual education organizations. A journal article summarizing research findings and educational implications of the study will be prepared for submission to a peer-reviewed special education journal. Copies of the final report will be made available to interested parties on request.

Improving the Word Recognition Skills of Children with Specific Learning Disabilities in Reading: Treatment and Transfer Effects

GRANT NUMBER: H023B60022

Principal Investigators: **Swanson, H. Lee**/
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Beginning Date: 7/1/96
Ending Date: 6/30/97

Purpose: To evaluate the effectiveness of a reading intervention designed to improve both phonological awareness and word recognition among children with learning disabilities in reading.

Method: Thirty-six children with learning disabilities in reading will be assigned to one of two 27-hour reading intervention programs or to a wait-list control group. The two reading intervention programs will provide the same training in phonological awareness (PAT) and word identification strategies (WIT), but in reverse order from each other. The two training components teach word analysis using different-sized units: in phonological awareness training, the smallest units of letter-sound mapping; and, in word identification strategy training, the larger units of onset-rime. Children will be administered curriculum-based measurements of reading and various standardized psychometric tests that measure phonological awareness, real and nonword reading, spelling, reading comprehension, self-concept, and school attitude. Children will be assessed prior to the start of the intervention and after each training component. In addition, oral reading fluency will be assessed weekly. Both group and single-subject design methodologies will be used.

Products: Children are expected to acquire improved word recognition skills and generalize what they have learned to uninstructed reading vocabulary. Project findings will be presented at a meeting with special education directors from cooperating districts and research project staff. A report will be submitted to the Boards of Education of each cooperating district, and manuscripts will be submitted to a state publication covering special education services.

Synthesizing and Communicating a Professional Knowledge Base on Positive Behavioral Support

GRANT NUMBER: H023E50001

Principal Investigator: **Turnbull, Ann**
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913-864-7608

Beginning Date: 10/1/95
Ending Date: 9/30/97

Purpose: The purpose of this project is to synthesize and broadly disseminate current research on positive behavioral support for students whose behaviors include self-injury, aggression, tantrums, property destruction, and self-stimulatory behavior.

Method: Based on a literature review resulting in an anticipated sample of 100-150 papers, staff will prepare a monograph which will include: (1) a list of articles composing the final review sample; (2) dimensions of functional analysis and assessment reported; (3) proactive nature of intervention; (4) aspects of change in social systems; (5) ecological validity of intervention agent and setting; (6) types of interventions employed and degree of skill improvement; (7) outcome effectiveness with respect to initial reduction in problem behavior; and (8) dimensions of social validity. This monograph will also address trends across time, factors related to intervention effectiveness, and gaps in the literature base. The research synthesis monograph will be translated into four "what works" monographs for: federal, state and local policy makers and general and special education administrators; teachers, families, and related service provides; students with problem behavior; and friends, peers, and community citizens.

Products: Following the development of the above monograph and manuals, a forum on Positive Behavioral Support will be convened, with members of all stakeholder groups invited to attend. Suggestions from this forum will be incorporated into further development of a range of user-friendly products, such as a model statute for use by state legislatures, inclusion of findings in textbooks, a wall calendar for classroom use, and a board game for students with behavior problems.

Integrative Synthesis of Instructional Grouping Practices for Reading Instruction for Students with Disabilities

GRANT NUMBER: H023E50005

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Beginning Date: 8/15/95
Ending Date: 8/14/97

Purpose: The project will examine the types of within-class grouping patterns that general and special education teachers use for reading instruction for students with disabilities and the social and academic outcomes associated with these grouping practices.

Method: The project will implement a systematic, objective, integrative review incorporating best practices for integrative reviews and meta-analysis procedures. Research from a broad spectrum of grouping practices will be synthesized, and studies of instructional practices imbedded in specific in-class grouping patterns (such as peer tutoring and cooperative learning) will also be incorporated into this review. Research in both general and special education settings will be examined, as will both academic and social outcomes of grouping patterns.

Products: The project will develop disseminable products including: (1) papers and monographs to inform the research community of the state of current knowledge on this topic; (2) brochures for parents; and (3) professional development materials for inservice and preservice special and general education teachers providing instructional guidelines for procedures and activities for within-class grouping practices for students with disabilities.

Interpretation of Narrative Theme and Students with Learning Disabilities

GRANT NUMBER: H023C30126

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Beginning Date: 9/1/93
Ending Date: 10/31/96

Purpose: This project will investigate the ways in which students with learning disabilities, compared with peers who are not disabled, comprehend complex text that focuses on a content domain of fundamental importance, namely, human social interactions. The project will also determine what types of instruction are effective in promoting comprehension and generalization of comprehension.

Method: The general methodology to be followed will be modeled on the general strategy of clinical interviews, using sets of 20 students with learning disabilities and equal numbers of age-matched and reading-ability-matched students who are not disabled. Initial questions will be open-ended and students will be encouraged to talk freely. Detailed probe questions will be employed to extract further information. A coding scheme will be developed for the analysis of the resulting protocols. Statistical analysis will use primarily analysis of variance and covariance.

Products: The project expects to generate the following products: selected and evaluated reading materials that focus on a small set of issues that are interesting, important, and useful for students with learning disabilities; guidelines for effective instructional strategies; an instructional program developed on the basis of these guidelines; and an evaluation of the instructional program.

SECTION 5

POLICY AND PROGRAM EVALUATION

Technical Assistance in Data Analysis, Evaluation, and Report Preparation

GRANT NUMBER: HS92035001

Principal Investigators: **Brauen, Marsha/ Ratnofsky, Alexander C.**
WESTAT
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301-251-1500

Beginning Date: 9/30/92
Ending Date: 9/29/97

Purpose: This project will create a Center for Data Analysis, Evaluation and Report Preparation to support Office of Special Education Programs (OSEP) in meeting its responsibilities for the collection, synthesis, and dissemination of information for program management, administration, delivery, and effectiveness.

Method: The Center will assist OSEP in developing the capacity to collect and analyze valid, reliable, and comparable data for reporting, program planning, and evaluation. Studies will be conducted to analyze significant and emerging issues in special education, and the Center will assist OSEP in providing guidance to state and local educators regarding educational reform issues. Assistance will also be provided to states working to build the capacity to collect valid and reliable data and to perform under the Individuals with Disabilities Education Act (IDEA). The Center will facilitate information exchanges among federal, state, and local special educators to discuss common concerns and goals. Information from multiple sources will be obtained, organized, and analyzed for reporting on the status of IDEA implementation, and the impact and effectiveness of IDEA implementation.

Products: The Center will provide information dissemination, technical assistance, and liaison functions, as well as demonstrate a commitment to stakeholder involvement. Instruments of the technical assistance component will include individual technical assistance activities, semi-annual forums, information packets, reference materials, and a research instruments database.

Center for Special Education Finance

GRANT NUMBER: H159G20002

Principal Investigator: **Chambers, Jay**
American Institutes for Research
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202-342-5031

Beginning Date: 10/1/92
Ending Date: 9/30/97

Purpose: The Center for Special Education Finance will provide policy makers and administrators at the federal, state and local levels, data analyses, expertise, and opportunities for information sharing regarding complex and critical special education finance issues.

Method: The Center will compile special education expenditure statistics with a data system that will produce nationally representative data linking fiscal analysis to program descriptions. This system will be replicable and will include the construction of a core database that will serve as the basis for the fiscal research to be conducted by the Center. Special education finance policy studies will be conducted through collaborative arrangements with many of the country's leading researchers in special education school finance. Information on state special education finance systems will be aggregated and updated as well.

Products: The Center provides much-needed information on how much is being spent on special education services and will assess patterns of resource allocation. Dissemination products include such items as a descriptive brochure, an annotated list of Center reports, policy briefs, data summaries, the core database along with documentation, summaries of Center technical reports, and press releases. Products that have been published include:

Chambers, Jay G., and Duenas, Ixtlac E. — *Impact of the Kentucky Education Reform Act on Special Education Costs and Funding (State Analysis Series)* (ED 381931).

Chambers, Jay, and others — *Special Education Weight Project for the State of Kentucky* (EC 303535); *District Revenues and Student Poverty: Implications for Special Education Resources and Services (CSEF Brief No. 5)* (ED 381932); *Special Education Expenditures and Revenues in a Census-Based Funding System: A Case Study in the Commonwealth of Massachusetts (State Analysis Series)* (EC 304851).

Hartman, William T., and Fay, Todd A. — *Cost-Effectiveness of Instructional Support Teams in Pennsylvania (Policy Paper No. 9)* (EC 304850).

Center for Special Education Finance (cont.)

McLaughlin, Margaret J. — *Consolidated Special Education Funding and Services: A Local Perspective (CSEF Policy Paper No. 5)* (ED 381933).

McLaughlin, Margaret J., and Warren, Sandra H. — *Resource Implications of Inclusion: Impressions of Special Education Administrators at Selected Sites (Policy Paper No. 1)* (ED 373468); *Impressions of Special Education Administrators at Selected Sites (CSEF Brief No. 3)* (EC 303532).

Montgomery, Deborah L. — *State Analysis Series: A Profile of Special Education Finance Reform in Vermont* (ED 381929); *A Profile of Special Education Finance Reform in Oregon* (ED 381930); *The Impact of the Kentucky Education Reform Act on Special Education Programs and Services: Perceptions of Special Education Directors* (ED 391272).

O'Reilly, Fran E. — *State Special Education Funding Formulas and the Use of Separate Placements for Students with Disabilities: Exploring Linkages (CSEF Policy Paper No. 7)* (ED 391271); *State Special Education Finance Systems, 1992-93* (ED 367113).

Parrish, Thomas — *Federal Policy Options for Funding Special Education (CSEF Brief No. 1)* (ED 370286); *State Funding Provisions and Least Restrictive Environment: Implications for Federal Policy (CSEF Brief No. 2)* (ED 370287); *Removing Incentives for Restrictive Placements: Fiscal Issues in Special Education (CSEF Policy Paper No. 4)* (ED 377608); *Fiscal Issues Related to the Inclusion of Students with Disabilities (CSEF Brief No. 7)* (ED 391269); *Special Education Finance: Past, Present, and Future (Policy Paper No. 8)* (EC 304849).

Parrish, Thomas B., and Montgomery, Deborah L. — *The Politics of Special Education Finance Reform in Three States (State Analysis Series)* (ED 381928).

Parrish, Thomas B., and Verstegen, Deborah A. — *Policy Issues and Alternatives: Fiscal Provisions of the Individuals with Disabilities Education Act (Policy Paper No. 3)* (ED 373470).

Vergun, Pamela B., and Chambers, Jay G. — *A Case Study of "Supported Education" in Oregon: Resource Implications of Inclusion (State Analysis Series)* (ED 381972).

Verstegen, Deborah A. — *Fiscal Provisions of the Individuals with Disabilities Education Act: Historical Overview (Policy Paper No. 2)* (ED 373469); *Consolidated Special Education Funding and Services: A Federal Perspective (Policy Paper No. 6)* (ED 385049); *Toward More Integrated Special Education Funding and Services: A Federal Perspective (CSEF Resource)* (ED 391270).

Finance in an Inclusive System: Report from the National Association of State Boards of Education (CSEF Brief No. 4) (EC 303533).

A History of Special Education: Nashville, Tennessee, 1940-1990

GRANT NUMBER: H023N60001

Principal Investigator: **Dorn, Sherman**
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813-974-9482

Beginning Date: 9/1/95
Ending Date: 8/31/98

Purpose: The project will conduct research and publish a history of special education policy and practice in Nashville, Tennessee since 1940.

Method: Data collection will employ both archival sources and oral history. Archival sources will include: published articles and reports by local researchers; articles in local newspapers; records of the Nashville Board of Education; records of legal cases involving special education in Nashville; records of hearings, bills, and legislative history; and records of the executive branch in Tennessee regarding the history of public policy concerning special education and mental retardation. Materials held by current and former employees of Nashville public schools, materials held by parents and former students, and materials held by the special education offices of city public schools will all be included in the study as well. Archival and oral history evidence will be evaluated for authenticity and credibility, and a database of catalog links will be created to store and organize findings.

Products: Products will include the following: a manuscript and a research report describing the history of special education in Nashville, analyzing the practical influence of research and advocacy on the education of individuals with disabilities in Nashville; a hypertext version of this report including additional material from oral history interviews; a manuscript placing the local history of special education in Nashville within a national context; and a set of oral history tapes and transcripts available for the use of other researchers.

Information Transfer

GRANT NUMBER: HS94017001

Principal Investigator: **Dumas, Dale**
Capital Consulting Corporation
8626 Lee Highway - Suite 2135
Fairfax, VA 22031-2135

Beginning Date: 10/1/94
Ending Date: 9/30/97

Purpose: The project will assist the Office of Special Education Programs (OSEP) in the transfer of information and data from major studies, currently reported at the federal level in technical reports into consumable, commercially disseminated products.

Method: The contractors shall review available literature on information transfer as the term is used in the context of social marketing and the field of education. The five-step approach to marketing the contractors have used in the past will be applied to this project. The major steps of this approach include: (1) defining a clear purpose for each dissemination product; (2) identifying, qualifying, and quantifying target audiences; (3) designing content and format; (4) determining most appropriate media; and (5) establishing a means of evaluating results. Following market research, contractors will develop a database of publishers and producers who will be contacted regarding dissemination needs. Final publishers of selected products will be selected from this list.

Products: Deliverables shall include: a list of OSEP reports on major studies for which a potential market is believed to exist; a synthesis of literature based on the literature review; market research plans in various drafts; the prioritized list of dissemination materials; and monthly administrative reports.

A Study to Determine the Current Levels of Outcome Attainment of Students with Specific Learning Disabilities (SLD) and Students with Severe Disabilities

GRANT NUMBER: H159A40007

Principal Investigator: **Harris, Lowell**
North Carolina Department of Public Instruction
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919-715-1565

Beginning Date: 9/01/94
Ending Date: 12/31/96

Purpose: The purpose of this project is to establish a baseline data pool with which to demonstrate the current level of outcomes attained by North Carolina students served under the Individuals with Disabilities Education Act (IDEA).

Method: The first year of the study will focus on two groups of students with disabilities (students with learning disabilities and students with severe impairments). The second project year will expand the study to include all students receiving services under IDEA. Data will be collected across the following domains: (1) participation outcomes; (2) enabling outcomes; (3) academic outcomes; and (4) post-school outcomes. A previously conducted feasibility study has indicated that these data can be collected with reliability using the AUEN system. Six North Carolina school systems have been invited to participate in the project, three of which participated in the previous feasibility study.

Products: The long-range goal of the project is to establish a statewide evaluation system to be used by all public schools in North Carolina. With this system, the public schools of North Carolina will be able to make judgements about the effectiveness of their programs for special needs students and make decisions for improving ineffective programs.

State and Local Education Efforts to Implement the Transition Requirements in the Individuals with Disabilities Education Act

GRANT NUMBER: H159D50001

Principal Investigator: **Hasazi, Susan**
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Department of Special Education
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802-656-2936

Beginning Date: 3/1/95
Ending Date: 2/28/98

Purpose: The project will establish and implement a research agenda designed to investigate state and local education efforts to implement the transition requirements in the Individuals with Disabilities Education Act (IDEA).

Method: The University of Vermont Center for Transition and Employment, the University of Illinois Center for Instructional Research and Curriculum Evaluation, the University of Minnesota National Transition Network and the National Association of State Directors of Special Education (NASDSE) are collaborating in this three-year effort to establish and implement a research agenda designed to investigate state and local education efforts to implement the transition requirements in the Individuals with Disabilities Education Act (IDEA). The overall project will consist of five separate substudies. Substudy 1 will employ a survey of 58 state and territorial directors of special education and 500 local directors of special education to acquire information on the range and variation in state and local policies related to the definitional components of transition services. Substudy 2 will use a longitudinal follow up of 200 randomly selected students in their last year of schooling to document the nature and extent of their participation in transition planning and explore the relationship between their participation and the resulting post-school outcomes approximately one year after leaving school. Substudy 3 will use expert review and case studies to identify context and salient characteristics (e.g. policy, organizational structures, funding, staffing, professional development, evaluation, interagency collaboration, leadership, advocacy, instruction and curriculum) that define exemplary implementation of transition services and promote positive outcomes for youth with disabilities. Substudy 4 will combine the survey in Substudy 1 and the longitudinal data in Substudy 2 to examine interagency involvement at federal, state and local levels. In addition, an issues forum will be used to identify impediments to and strategies for improving interagency involvement at state, federal and local levels. Substudy 5 will conduct a policy analysis to identify federal program services and policies which are relevant to the design and delivery of transition services and fulfill the requirements of IDEA.

State and Local Education Efforts to Implement the Transition Requirements in the Individuals with Disabilities Education Act (cont.)

Products: Products developed as a result of these investigations will include: descriptive materials such as brochures and news releases, articles in national, regional, and state level newsletters, project publications including research reports, policy briefs and case studies, journal articles and book chapters, and workshop and conference presentations.

Technical Support for the Department of Education's Effort for Translating Research to Practice for Educating Individuals with Disabilities

GRANT NUMBER: HS92017001

Principal Investigator: **Kane, Michael**
Chesapeake Institute
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Washington, DC 20007
202-785-9360

Beginning Date: 10/1/92
Ending Date: 9/30/97

Purpose: The project will provide technical support for the Department of Education's effort to translate research into practice in the field of educating students with disabilities.

Method: The project will plan and evaluate programs to support the development of national program agendas, and identify and confirm focus statements and strategic targets for national commitment. Information will be synthesized from a variety of sources, including literature, programs, individuals and groups, to identify potentially effective practices. In the process of developing an accessible professional knowledge base, the project will implement and evaluate strategies for creating linkages between researchers and practitioners, in addition to disseminating pertinent information and soliciting consumer input. The project will also develop and implement a performance management system to ensure continuation and generalization of practices found effective.

Products: Results of program evaluations will be a series of reports corresponding to specific project target statements, a final report on implementation procedures, and a final report on national agenda-building processes.

Cooperative Agreement to Establish a Center for Policy Research on the Impact of General and Special Education Reform

GRANT NUMBER: H023H40002

Principal Investigator: **Roach, Virginia**
National Association of State Boards of Education
1012 Cameron Street
Alexandria, VA 22314
703-684-4000

Beginning Date: 10/1/94
Ending Date: 9/30/97

Purpose: This project will establish a Center for Policy Research on the Impact of General and Special Education Reform to investigate and analyze critical issues in current general and special education policies, their interactions, and their impact on students with disabilities, with a focus on discerning policy options for stakeholders at the federal, state and local levels.

Method: Over a 3-year period, the Center will conduct extensive cross-site analysis across diverse state and local sites and across dimensions of policy development, implementation and impact. The Center will use primarily qualitative research methodologies, including systematic policy review, case study design and action research. The Center will report on: (1) interaction of special and general education reform efforts within sixteen states; (2) four in-depth case studies of how state-level special and general education reform policies interact with and impact on local school districts and on students with disabilities; and (3) four additional in-depth case studies of school districts engaging in reform of both general and special education, such as those creating "inclusive" schools, including their interactions with state-level educational policies.

Products: The Center will provide a structured program of training and mentoring to at least four graduate students each year in the fields of public policy and/or disability policy. They will be offered formal course work and will participate as field researchers under the direction of senior researchers. The Center's research findings will be widely disseminated through channels and vehicles that are readily accessed by a variety of stakeholders in language that will be jargon-free, appealing to a wide audience.

School Choice Options and Positive Outcomes for Students with Disabilities

GRANT NUMBER: H023C50050

Principal Investigator: **Ysseldyke, James**
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Minneapolis, MN 55455
612-624-4014

Beginning Date: 10/1/95
Ending Date: 9/30/98

Purpose: The project will examine four school choice options that may be enabling children with disabilities to reach successful outcomes.

Method: Options to be explored include two established options (second chance programs and postsecondary options) as well as two emerging options (charter schools and home schooling). Qualitative methodologies will be used to examine the experiences of students with disabilities in all options, and quantitative methodologies will be used in measuring outcomes for students in second chance and postsecondary options in comparison to those who do not participate. The study will also examine how charter schools and families participating in home schooling educate students identified as having a disability, as well as the potential impact of these practices on students and special education. After separate studies of all four options, a fifth study will integrate all findings in order to enable policy makers and educators to make informed decisions about the possibilities of school choice options and the attainment of outcomes for students with disabilities.

Products: Products for this project will include the customary research reports and journal articles. In addition, staff will develop products that present the findings in an user-friendly format. These products will include policy briefs, short reports, and fact sheets. Similar products will be developed to reach parents and other interested parties.

The Center to Support the Achievement of World Class Outcomes

GRANT NUMBER: H159C50004

Principal Investigator: **Ysseldyke, James**
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Beginning Date: 10/1/95
Ending Date: 9/30/00

Purpose: This project will establish a Center to Support the Achievement of World Class Outcomes for Students with Disabilities which will assist states in implementing activities for students with disabilities and document states' efforts in these areas.

Method: The Center will conduct three interrelated strands of activity: (1) Documentation and Analysis; (2) Information Exchange and Dissemination; and (3) Technical Assistance. Key activities in the Documentation and Analysis strand will include documenting the participation of students with disabilities in state and national assessments, the secondary analysis of outcome data for students with disabilities, the documentation of state and national standards-setting activities, and the tracking of the participation of students with disabilities in state Goals 2000 plans. Strand 2 activities will include production and dissemination of products, facilitating information exchange among researchers and developers, infusing the disability perspective into a variety of materials used by general and special educators, networking and linking with parents, advocacy groups and other organizations, and telecommunications networking. The scope of technical assistance activities will encompass provision of direct TA to states, work with regional resource centers, and work with other technical assistance providers.

Products: The Center will contribute to current knowledge and practice, lead to improved services for infants, toddlers, children and youth with disabilities, and provide state and national audiences with information on the impact and effectiveness of programs and services provided under the Individuals with Disabilities Education Act. Planned products for dissemination will include information reports, update reports, recommendation reports, directories of projects and resources, lists of relevant publications, press releases, and publications in other periodicals.

SECTION 6

RESTRUCTURING AND SERVICE DELIVERY ISSUES

The CHILD Health Resource Partnership: Collaborative Health Interventions for Learners with Disabilities (CHILD)

GRANT NUMBER: H023D40013

Principal Investigator: **Bagnato, Stephen**
Children's Hospital of Pittsburgh
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Pittsburgh, PA 15213-2583
412-692-5560

Beginning Date: 9/1/94
Ending Date: 8/31/97

Purpose: This project will develop an integrated, transagency, and transdisciplinary model to plan, deliver, and research the efficacy of pediatric health care support services to families and young children with chronic health care needs and developmental disabilities.

Method: This 3-year clinical research project targets children between 4.5 and 6 years who are at high risk for cumulative educational and functional disorders because of dual developmental disabilities and chronic health conditions. This project focuses on the late preschool to early primary school period as critical to the success of children who must move from early intervention programs that emphasize more family-centered and interagency services to less collaborative, more professionally-centered school-age services. Targeted CHILD participants will have a variety of mild to severe neurodevelopmental and neurobehavioral disorders, associated active medical conditions, and mental health disorders. During the first of two research phases, staff will observe, follow, and compare two groups of young children with dual medical and developmental needs within the public schools. The control group will consist of a matched sample of children (N=25) who will receive a program plan that they have typically received regarding an array of uncoordinated services. The experimental group will also enroll a matched sample of children (N=25) who will receive the CHILD interventions. After a period of 1 year, Phase 2 will commence, in which the control group will begin to receive the CHILD interventions. Within and between group effect size comparisons will be analyzed as well as the progress and outcome indicators from using each child and family as its own control.

Products: This project will result in the development of a system of transagency care for children and families with developmental disabilities and medical and mental health needs, a family-centered model of decision making about child needs that relies on parental participation and coleadership, and establishment of collaborative transagency strategies for teamwork that foster agency and policy changes.

Project Education Plus: A Proposal to Include Children with Disabilities as a Part of the Systemic Efforts to Restructure Schools

GRANT NUMBER: H023R20010

Principal Investigator: **Davis, Thomas**
Holt Public Schools
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Holt, MI 48842
517-694-0401

Beginning Date: 1/1/93
Ending Date: 12/31/96

Purpose: The project will restructure secondary programs at Holt High School in order to provide improved student advocacy for students with disabilities and those designated as "high risk."

Method: Interactive relationships will be developed with established school programs, child and adult service agencies, and the Holt community. Parent and student support groups will be established, and training in postsecondary rights and service delivery systems will be provided for students and parents. A core transdisciplinary staff will be established with the ability to identify needs and assist with making contacts with identified agencies. Specific services provided to students will include mentorship, vocational assessment, career counseling, psychosocial counseling, training in assertiveness and self-advocacy, and other services as identified imperative to transition into adult life.

Products: An estimated 250 students will be directly served through the project, and an additional 300 will receive indirect services. The ultimate outcome to the students will be active participation in achieving personal, educational, and vocational skills development, utilizing school and community support, to result in appropriate employment, independence, and involvement with the community. A comprehensive evaluation plan, including formative and summative evaluation methods, will provide and disseminate data on the effectiveness, and efficiency of project efforts.

Project SCORE: Systemic Change Organizing Reform Efforts

GRANT NUMBER: H023R20016

Principal Investigator: **Fuchs, Lynn S./**
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Vanderbilt University
Peabody College Department of Special Education
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615-343-4782

Beginning Date: 1/1/93
Ending Date: 12/31/96

Purpose: This project will employ a systematic perspective in pursuit of an ambitious agenda of working at the state, district and school levels to evaluate and revise policies and practices and encourage full participation and collaboration among members of the Metro-Nashville public school system and the community at large.

Method: Quantitative and qualitative methods will be employed within a quasi-experimental design using two project schools and one comparison school. After spending the first half of the first year in planning, School A will conduct small pilots of systematic changes and effective practices, with School B being studied for comparison and control purposes. Implementation at School A will gradually increase throughout the second year until at least 70% of the school population participates in project activities. Meanwhile School C will commence planning and piloting much as School A did in the previous year. Individual goals within this framework will range from detracking and curriculum enrichment to university and hospital linkages and reform of decision-making and self-determination processes throughout the system.

Products: Following documentation and validation of project practices, dissemination to the scholarly audience will focus on ERIC network reports, journal articles, and presentations at national, state and regional conferences. Parents and practitioners will be reached through dissemination of a training manual and other practitioner-oriented documents. Professional leadership training activities and other technical support will be provided to support replication and implementation of identified practices.

Inclusion of Students with Disabilities in Diverse Schools

GRANT NUMBER: H023B60011

Principal Investigators: **Garfunkel, Frank/**
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Beginning Date: 9/1/96
Ending Date: 8/31/97

Purpose: To explore and describe the process of how inclusion policies and practices evolve in public schools and how successful these practices are perceived to be in the school community.

Method: This study will develop a working definition of inclusion, operationalize successful inclusion as identified in the literature, and explore the factors considered critical in a school's movement toward and support of successful inclusion practices. Phase One will involve surveying all school districts in Massachusetts using a systematic stratified sample, from which three elementary schools will be selected. Using state education agency data, communities which use fewer substantially separate classrooms and private settings to educate students with special needs will be assigned low prototype indices. Additional general and special education demographic information and community characteristics will be correlated with prototype indices to control for selection of diverse school districts. Phase Two will involve a detailed description of inclusive practices in the selected schools, perceived success of these practices, and the factors or conditions which led to policy design and program implementation. Data will be collected through district-wide and school-written documentation, focus groups with parents and staff, extensive classroom observations, and interviews with school administrators and teachers.

Products: The final project report will be presented to participating school districts and made available to others. Articles about the project will be submitted to special education publications, and presentations will be made at professional meetings for researchers, special educators, and policy staff.

Including Children with Disabilities as a Part of Systemic Efforts to Restructure Schools

GRANT NUMBER: H023R30030

Principal Investigator: **Gelzheiser, Lynn**
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518-442-5065

Beginning Date: 6/1/93
Ending Date: 5/31/97

Purpose: This project will develop, implement, and evaluate district-wide policies and procedures to change the overall educational system in a manner that includes students with disabilities as a major component of this reform.

Method: The model project will be implemented in a school district in Rotterdam, New York, which currently serves 2,900 students, including 215 special education students. The project will employ a district steering committee, a model project think tank, six district planning teams, three building reform teams, and four participant/observers as basic structures of operation. During the initial planning phase, district planning teams will engage in refining major goals, determining specific outcomes associated with each goal, and developing measurement techniques to assess each specific outcome. Building-level planning will follow, using school-based teams to set standards for determining goal attainment at each school, and to formulate reform intervention plans and professional development activities designed to accomplish these reforms. Building reform teams will design strategies and structure implementation activities in their own schools, and along with the steering committee, they will monitor the efficacy of implementation.

Products: Project staff will present findings and results of this project at state and local conferences. They will also provide inservice training and develop articles for publication in relevant research journals.

Questionnaire Survey, Related IEP Review, and Practitioners Interview for Quantitative and Qualitative Analyses of Effective Field Practice and Dissemination

GRANT NUMBER: H023B60037

Principal Investigators: **Lian, Ming-Gon J./**
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309-438-7958

Beginning Date: 7/1/96
Ending Date: 6/30/97

Purpose: To explore general characteristics of an inclusive program, to investigate common teaching and accommodation strategies used in the classroom with inclusion students, and to investigate school personnel perceptions of the strategies used.

Method: This study will use both quantitative and qualitative procedures to conduct a survey among 500 teachers, coordinators, and related service personnel from urban, suburban, and rural areas. During Phase One, personnel will be hired and assigned tasks, the advisory committee will meet, and measurement instruments will be developed, tested, and revised. During Phase Two administrators and teachers will be contacted and surveyed via questionnaires and follow-up interviews. Data from Individualized Education Plans will also be collected and analyzed in this phase, focusing on students' goals and objectives. Data will be analyzed using coding and comparisons through ANOVA and Chi square techniques as well as qualitative processing.

Products: A handbook will be developed for supporting teachers, administrators, and program coordinators who are interested in implementing or improving inclusion programs. This handbook and other project information will be disseminated through journal articles, conferences, and graduate student research symposia and forums.

Evaluating School-linked Services for Children with Disabilities and Their Families

GRANT NUMBER: H023D40017

Principal Investigator: **McKinney, James**
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305-284-5388

Beginning Date: 7/1/94
Ending Date: 6/30/97

Purpose: This project will describe the participation and outcomes of students with disabilities and their families who receive school-linked services in schools that are implementing the full-service school concept, and will study programmatic and policy implications associated with the delivery of school-linked services using a full-service school concept.

Method: Staff will conduct three interrelated studies to address: (1) the implementation of this concept of delivery; (2) whether services provided are culturally competent and based on family needs rather than service providers' perspectives; and (3) academic and social outcomes of participating students with disabilities. The research will be conducted in two elementary schools selected by the district because of their substantial need for general health, mental health, and social services. Study 1 will conduct case studies with the schools as the unit of analysis to provide an in-depth profile of the full-service concept, describe the participation of children and families, and identify systemic and programmatic features that act as barriers to, or facilitators of participation. Study 2 will compare the extent of participation and the outcomes of students with disabilities who attend full-service schools with: (1) students without disabilities in the same schools; and (2) students with disabilities who receive continual special education and related services in representative schools in the district. During this study, staff will also assess and analyze students' outcomes using the National Center for Educational Outcomes model. Finally, Study 3 will involve an analysis of 12 individual case studies of students with disabilities and their families that focuses on the quality of services and whether this quality varies with type of disability and race and ethnicity.

Products: This project will result in an in-depth profile of the full-service school concept, an in-depth description of full-service school concept implementation, an analysis of the academic and social outcomes for students with disabilities, and data regarding programmatic and policy implications of the full-service school concept.

Systemic School Reform for Students with Disabilities in Prince George's County

GRANT NUMBER: H023R30016

Principal Investigator: **McLaughlin, Margaret**
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Beginning Date: 8/1/93
Ending Date: 7/31/97

Purpose: This project will assist three separate elementary schools in Prince George's County, Maryland, to move toward a comprehensive school-wide restructuring process that will address the major aspects of school restructuring including the special education service delivery system.

Method: Within each school, project staff, in cooperation with school staff, will: (1) select and refine a framework for restructuring special education service delivery; (2) develop a comprehensive strategic plan that specifies goals in each of the 5 restructuring areas, identifies key events that must occur, responsible parties, and specifies time lines; (3) implement and refine the systemic educational restructuring plan to accommodate ongoing reform initiatives; (4) conduct case studies to document the process of restructuring; (5) develop school sites into professional development centers providing collaborative training of special and regular educators; and (6) conduct project evaluation.

Products: The outcome of the project will be three individual approaches to restructuring the total educational programs within participating schools. Experiences of participants, as well as intended and unintended outcomes or products, including effects on students, will be carefully documented through case studies and broadly disseminated.

Restructuring Education for Work: Examining the Outcomes for Youth with Disabilities

GRANT NUMBER: H023R20034

Principal Investigator: **Minor, Don**
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Mt. Prospect, IL 60056
708-577-7749

Beginning Date: 1/1/93
Ending Date: 12/31/97

Purpose: The primary goals of this project are twofold: (1) to refine and implement a merged restructuring effort centering on the inclusion of youth with disabilities in Tech Prep programs, and (2) to rigorously evaluate the processes, effects and impact of this initiative.

Method: A 15-member Leadership Cadre will guide the development and implementation of the project. The Cadre will be facilitated and supported by an evaluation consultant team from the Center on Education and Work and the Center on Organization and Restructuring of Schools, both located at the University of Wisconsin. The basic project design will incorporate concepts of reflective practice, teamwork, continuous quality improvement, organizational learning, and action research teams. These teams will conduct focus groups, surveys, interviews, document analyses, and observations as appropriate. Based on a comprehensive data set, specific reform strategies will be developed, implemented, and evaluated in Years 2 and 3. During the latter part of Year 3 and throughout Year 4 the validated processes will be replicated in nearby school districts.

Products: The primary products of this program will be a guidebook describing the planning, implementation, and continuous assessment processes used throughout the study. A series of special reports and journal articles documenting the resolution of critical curriculum and instructional issues will be released.

The Thoughtful Structures and Effective Practices Project: Building an Inclusive Exemplary High School Community

GRANT NUMBER: H023R30015

Principal Investigator: **Phelan, Dan**
Lake Washington School District #414
10903 N.E. 53rd Street P.O. Box 2909
Kirkland, WA 98083
206-828-3201

Beginning Date: 6/1/93
Ending Date: 5/31/97

Purpose: This project will incorporate effective practices for students with disabilities into a new high school that is committed to inclusion.

Method: Beginning in Year 1 and continuing throughout the project, the project will play a major role in developing the high school's mission, student goals, student outcomes, and quality indicators, to better reflect the diversity of student needs. The project Advisory Committee and school teams will receive training and assistance needed to participate in the school process of developing systems of accountability for its students, actualizing its inclusion goal, and reallocating staff and resources for integrated programming. Project funds will support staff development in best practices for secondary students with disabilities chosen by the school teams. Multiple methods will be used to document the process of developing an inclusive high school including focus group interviews, stakeholder surveys, observation and documentation of meetings, and collection and analyses of school documents.

Products: Findings and updates on the ongoing project will be disseminated through newsletters to parents of students with disabilities and their teachers.

Kansas University Affiliated Program at Lawrence's School-Linked Services Research Project

GRANT NUMBER: H023D40020

Principal Investigator: **Sailor, Wayne**
University of Kansas
1052 Dole
Lawrence, KS 66045
913-864-4950

Beginning Date: 8/1/94
Ending Date: 7/31/97

Purpose: This project will study school-linked services that are designed to support better outcomes for children with disabilities and their families through the combined efforts of the Kansas State Board of Education (KSBE) and two local school districts providing school-linked services.

Method: The sample for this investigation will include all children (N=270) and their families who receive school-linked services through one of the two target projects. This research project consists of interactive qualitative and quantitative components designed to augment each other. For the qualitative component, staff will conduct naturalistic inquiries regarding policy and implementation issues related to school-linked services. These naturalistic inquiries will reveal the perspectives of participants at all levels of the implementation process, including consumers, teachers, administrators, related service providers, and other stakeholders. During the first project year, the inquiry team will identify service integration needs and barriers at each site and develop potential solutions relative to matters such as logistics of services and staff training needs. During the second project year, policy, planning, and implementation recommendations will be enacted and the inquiry will serve as a formative evaluation of their impact. Using both consumer and participant perspectives, inquiry teams will examine both accessibility and outcomes of these services. The third project year will involve development and refinement of case studies detailing the impact of planning and implementation processes carried out during the first two years. Quantitative descriptive research techniques will be used primarily to examine the impact of school-linked services integration in terms of accessibility of services and outcomes of services. Investigations will be prioritized by relevant stakeholders through Advisory Council participation and naturalistic inquiry information. Areas of study will include length of time between problem identification and implementation of services, and demographic information.

Products: This project will result in identification of effective processes for the initial development and implementation of school-linked services, identification of barriers to school-linked service implementation, and a description of the impact of school-linked services on children with disabilities and their families.

Project SUCCEED in Middle Schools: Securing Understanding in Content through Consultation and Explicit Environmental Demands

GRANT NUMBER: H023C30064

Principal Investigator: **Tindal, Gerald**
University of Oregon
BRT - 232 Education
Eugene, OR 97403-5262
541-346-1640

Beginning Date: 7/1/93
Ending Date: 6/30/98

Purpose: This project will develop, field-test, and evaluate a special education service delivery model for middle schools, with content teachers as the primary source of instruction.

Method: In Year One, the project will focus on providing content teachers a structure for organizing their content-teaching. During Year Two, the study will investigate effects on systematic data-based feedback on teachers' use of this structural framework. In Year Three, attention will shift to examine how teachers manipulate the two dimensions of the framework in their curriculum and within their interactive instruction to achieve changes in student perception and learning. In the fourth project year, the special educator will be added as case consultant within this package with a student progress monitoring system. The teacher will also be placed in the role of researcher to identify individually effective strategies within a component analysis, using individual student monitoring of learning outcomes and explicit consultation support systems. Finally, in Year Five, the manipulation of Organized Knowledge Forms and Interactive Learning Tasks will be synthesized in a consultation system and evaluated.

Products: Dissemination activities will include the following: presentation at national conferences during all 5 years of the project; presentations at preconference workshops; publication of a number of research reports, monographs, and training modules; and teaching both methodology and findings from research in courses on-campus.

Project Departure: Designing Educational Programs Aligned with Reforms in Teaching and Uniform Restructuring in Education

GRANT NUMBER: H023R30026

Principal Investigator: **Tindal, Gerald**
University of Oregon
BRT - 232 Education
Eugene, OR 97403-5262
541-346-1640

Beginning Date: 7/1/93
Ending Date: 6/30/97

Purpose: This project will attempt to implement and explain the relationships among interdependent systemic processes and resource use strategies within the context of school reform/restructuring to enhance system adaptability and inclusiveness as means for achieving better educational outcomes for children with disabilities.

Method: Three important resource use strategies with extensive empirical support and widespread application will be explored; including: team-building from within the context of organization development framework; consultation as practiced from a broad behavioral approach; and curriculum-based assessment. Particular objectives to be sought among participating children will include presence and participation in school programs, independence and personal responsibility, skilled social behaviors, and improved literacy.

Products: This project will provide systemic design features for assuring that primary school restructuring initiatives meet the needs of children with disabilities. The use of rigorous case study replications will both guide these efforts and provide valid design principles for schools initiating primary education reform and restructuring initiatives.

The Quality Management and Practices Project (QMAP)

GRANT NUMBER: H023R20019

Principal Investigator: **Vadasy, Patricia**
Washington Research Institute
150 Nickerson, Suite 305
Seattle, WA 98109
206-285-9317

Beginning Date: 1/1/93
Ending Date: 12/31/96

Purpose: The project will develop and implement a process for adapting and internalizing effective assessment and instructional practices for students with disabilities that will inform the ongoing broader school-based restructuring efforts in the four-school Powerful Schools Coalition (PSC).

Method: An organizational context will be developed to stimulate ongoing implementation of school innovation for students with disabilities. The PSC will develop a plan for systemic change to incorporate effective practices for students with disabilities in PSC restructuring efforts. Effective practices for students with disabilities will be designed, introduced, evaluated, refined, and incorporated in field-test classrooms within participating schools. Validated practices will then be selected for implementation throughout the PSC. Case studies will be conducted on the policy, organization, administrative, operational and cultural features that enable schools to implement systemic changes.

Products: The project will identify the mediating and bridging conditions that link effective teaching and learning practices with structural alterations that sustain positive student and teacher outcomes. The case studies will be a major product of the project, as they will describe components of the system and the culture of the schools that the schools choose to focus on as they incorporate these practices into the process of continuous improvement.

Shared Responsibility

GRANT NUMBER: H023R30029

Principal Investigator: **Vandercook, Terri**
University of Minnesota
111 Pattee
Minneapolis, MN 55455
612-624-1349

Beginning Date: 9/1/93
Ending Date: 8/31/97

Purpose: This project plans to initiate and sustain systemic school change that supports the inclusion of students with disability labels in general education classrooms and in their communities.

Method: Through the process, members of the Alice Smith School community will collaboratively gather information about the systemic and organizational features of their school and community, describe goals and visions for both the school and for student outcomes, identify critical features that impact the full adoption of new ideas and best practices, and implement strategic action plans to restructure the system so that full inclusion and educational excellence are achieved. Intensive, ongoing evaluation will be used to assess and refine the restructuring model to develop a systematic yet flexible model that will be replicated in a second school in the third and fourth years of the project.

Products: This project is expected to significantly contribute to knowledge about systemic features of schools that impact adoption of inclusive education best practices, and of planned educational restructuring. Dissemination of project results and findings will be achieved through a combination of conference presentations, journal articles, and replication efforts. Project staff have published the "Feature Issue on Inclusion and School Restructuring" by Terri Vandercook and Jennifer York-Barr, *Impact* 9, no. 2 (Spring 1996) (EC 304768).

SECTION 7

SECONDARY EDUCATION AND POSTSECONDARY OUTCOMES

Beyond Bridging the Gap: Creating Learning Communities of Research and Practice

GRANT NUMBER: H023G50045

Principal Investigators: **Boudah, Daniel/ Knight, Stephanie**
Texas A & M University
Department of Educational Psychology
College Station, TX 77843-4225
409-845-1831

Beginning Date: 9/1/95
Ending Date: 8/31/99

Purpose: The project will develop and validate a participatory research and development model that creates learning communities of research and practice. The ultimate goal of these communities of research and practice is to impact teacher thinking and instructional behavior in inclusive classes, the school systems and cultures in which teachers work, university teacher training and research programs, and the academic outcomes of students with and without disabilities in inclusive classes.

Method: The project will develop a working model of participatory research and development (PR&D). In the first year, the model will be implemented with ten secondary special and general education teachers (expanding to 35 teachers in the first three years) to address authentic instructional problems in the inclusive classrooms of participating teachers. Descriptive and intervention studies will determine the effects of teacher involvement in participatory research and development on their problem-solving/innovation development process, including their planning, instructional behaviors, and attitudes. Intervention studies over the first three years of the project will determine the effects of teacher participation in the PR&D process and implementation of classroom teaching and learning strategies in experimental classrooms on the academic performance of students with mild disabilities as well as those without disabilities (N=80 students in the first and third years, N=40 in the second). In addition, in each year of the project, the academic performance of students with and without mild disabilities within experimental classes will be compared to the academic performance of students with and without disabilities in classrooms where teachers do not participate in PR&D, but do implement the innovations of PR&D teachers. Descriptive studies will address the effects of teacher, administrator, and staff involvement in participatory research and development on the system, culture, and professional climate of the schools included in the project. Finally, descriptive studies will determine the effects of participation in participatory research and development on the attitudes, future research plans, and teacher preparation programs involving participating university educators.

Products: Project findings will be disseminated through presentations to peers within participating institutions and regional and national conferences. Research findings will be published in practitioner and research journals.

Performance Enhancement Routine for Use in Inclusive Secondary Content Classrooms

GRANT NUMBER: H023C50143

Principal Investigators: **Bulgren, Janis/ Schumaker, Jean Bragg**
University of Kansas Center for Research
3061 Dole Center
Lawrence, KS 66045
913-864-4780

Beginning Date: 8/1/95
Ending Date: 7/31/00

Purpose: The project will develop and validate four new routines, called Performance Enhancement Routines, which will be aimed at overcoming the barriers associated with methods used to ensure and evaluate mastery of secondary school content.

Method: Components of the Performance Enhancement Routines to be developed and validated include the following: an Assessment Planning Routine to be used by teachers in analyzing content they teach and creating assessment tools appropriate to both content and student characteristics; a Study Guide Routine to help teachers create study guides matched to assessment tools; a Review Routine to be used as a closure activity through which students can review important information in cooperative study groups; and a Feedback Routine to provide feedback to whole classes of students on both content and process aspects of learning. An evaluation of effects of the teacher training program on implementation of this model will be conducted, as will an evaluation of effects of the instructional model on student performance on both content measures and motivational factors. The social validity of the instructional model will also be measured by specially designed surveys. Descriptive studies yielding both quantitative data from teacher surveys and qualitative data from information received from teacher focus groups will also be collected.

Products: The routines to be developed through this project will be usable in combination with current Content Planning Routines and Content Delivery Routines to help students with disabilities succeed in content-area classes at the secondary level. Numerous reports and professional papers will be prepared for presentation and publication through journals, conferences, and agency-sponsored training sessions. These papers will include the original position paper, results of annual studies, and teacher training procedures.

A Feasibility Study for a Data-based Tracking System for Secondary Students with Disabilities

GRANT NUMBER: H159F50001

Principal Investigator: **East, Bill**
Alabama Department of Education
Special Education Services
P.O. Box 302101
Montgomery, AL 36130-2101
334-242-8114

Beginning Date: 8/1/95
Ending Date: 7/31/97

Purpose: This project will evaluate the feasibility of implementing a statewide student tracking system for Alabama's secondary students and young adults with disabilities.

Method: A follow-along project design will be employed to collect data on both in-school and post-school indicators. The sample will consist of students from Jefferson County (urban) and Lee County (rural) high schools. All students over 17 years of age in participating schools will be administered a questionnaire (approximately 242 students.) For the post-school phase, half of all students who exited these two school systems in the 1994-1995 school year will be administered the post-school questionnaire via telephone, (approximately 202 post-school participants.) Ultimately, the student tracking system would gather information on the same students at both 17 years of age in-school and 9 months post-school. This information will then be used to identify links between post-school indicators and specific programs, services, and prior program improvement activities. A task force will be developed, to consist of individuals from an array of state and local agencies representing administrators, educators, and consumers. This group will translate project outcomes into a set of recommendations for policy formation, adoption, and implementation in Alabama.

Products: The final project report will include a description of the piloted student tracking system, the developed in-school instrument and revised post-school instrument, the results of the pilot test in terms of analysis for in-school and post-school indicators, the final project evaluation report, and the task force's recommendations for policy formation.

General Education Development (GED) Success: Effective Instructional Interventions for Students with Disabilities

GRANT NUMBER: H023P30004

Principal Investigator: **Emerson, John**
Washington Research Institute
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Seattle, WA 98109
206-285-9317

Beginning Date: 9/1/93
Ending Date: 8/31/97

Purpose: This project will identify and document interventions that provide effective individualized instructional accommodations and supports for students with learning disabilities and behavior disorders in secondary GED preparation programs.

Method: A multi-agency Advisory Task Force will identify the needs and barriers to GED programs that students experience, effective preparation programs and instructors, and intervention strategies that will address student needs. Students with disabilities who have dropped out of Seattle schools will be recruited and assigned to one of three regular education GED programs: a computer-assisted curriculum for pre-GED and GED preparation; a test-based GED curriculum based on student strengths and test characteristics; or a program of instructional accommodation and support based on identification of barriers and successful program features. Budget strategies will be identified to capture the FTEs of all target students so that interventions can be supported without grant funds after the project ends. Each of these GED interventions will be evaluated to determine its effectiveness in preparing students to successfully complete the GED subtests. Students who successfully complete these interventions will be compared with students who do not complete them, and a control group of nonenrollees on occupational, social, and personal outcomes.

Products: Information on effective GED practices identified in this project will be disseminated to secondary and postsecondary program sites, professional and advocacy organizations, and state and federal offices.

Students' Entrepreneurial Education Research Project

GRANT NUMBER: H023C50080

Principal Investigator: **Gliner, Jeffrey A.**
Colorado State University
206 Occupational Therapy Bldg.
Ft. Collins, CO 80523
303-491-0699

Beginning Date: 9/1/95
Ending Date: 8/31/98

Purpose: The project will investigate the relationship between entrepreneurial education and the development of self-mastery skills for secondary students with emotional disorders during school and upon exit or graduation from high school.

Method: Using a three-level entrepreneurial curriculum, staff will work with 55-75 students ages 6 through 21 who are participating in three different alternative programs as a result of failure in a mainstreamed secondary education environment. Staff will coordinate project activities and facilitate a multi-disciplinary, multi-agency advisory and service team to include students, teachers, counselors, entrepreneur mentors, employers, parents, law enforcement representatives, and representatives of social service agencies. A case study approach using a participatory action research model will provide the qualitative component of the project's evaluation, while standardized measurement tools combined with subjective assessments by entrepreneurial coordinators will provide quantitative evaluation. The business community will be drawn in to help determine specific employability skills they want to see in potential new employees, and mentors will provide support as each class plans, develops, and implements an entrepreneurial enterprise.

Products: Project findings will be presented at local, state and national conferences directed towards teachers, administrators, related services personnel, adult service providers, parents and students with emotional disorders. The Colorado Department of Education will disseminate the finished curriculum statewide, and staff will submit process and research articles to relevant professional journals.

The Development and Validation of a GED Proficiency Attainment Model for Students with Learning Disabilities and Severe Emotional Disabilities

GRANT NUMBER: H023P30008

Principal Investigator: **Mellard, Daryl F.**
University of Kansas
3061 Dole Human Development Center
Lawrence, KS 66045
913-864-4780

Beginning Date: 8/1/93
Ending Date: 12/31/97

Purpose: This program will identify barriers to GED program participation and completion for students with learning disabilities (LD)) and severe emotional disturbances (SED) who drop out of high school. The project will also design, implement, and evaluate an intervention model to accommodate these students' needs related to completion.

Method: In the first phase of the project, those involved in the GED process will participate in interviews, focus group meetings, and/or observations. These data sources will provide information describing the current needs of students and instructors in GED programs. In collaboration with those involved, an intervention package will be designed for implementation and evaluation in the second research phase. One product will be an intervention model generalizable to other GED programs. The intervention model will address academic and self-management skills as major areas influencing GED participation and completion.

Products: The instructional model will consist of three packages: (1) a Recruitment Package; (2) a GED Preparation Package (consisting of the Strategies Application Component, the Strategic Tutoring Component, the Content Enhancement Component, and the Self-Management Component); and (3) a Test Performance Package. In each area, learning and self-management strategies and related needs of students with LD and SED will be addressed in conjunction with the teaching skills and programmatic influences on participation and completion.

In-School and Post-School Outcome for Students Declassified from Special Education

GRANT NUMBER: H023B60017

Principal Investigators: **Walther, Thomas/**
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School of Education
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Williamsburg, VA 23187-8795
804-221-2310

Beginning Date: 5/1/96
Ending Date: 6/30/97

Purpose: To analyze in-school and post-school outcomes for secondary-aged students with disabilities who were tracked for five years after being declassified from special education.

Method: This study will employ data from the National Longitudinal Transition Study (NLTS), which utilized a nationally representative sample of 8,000 secondary students with disabilities who were tracked for five years after leaving school and transitioning into employment, higher education, and other adult roles. Approximately 400 of these subjects were declassified from special education. Data on students' demographic characteristics, course work, special education and related services, and functional skills will be explored as correlates of educational outcomes. Descriptive case studies will supplement the NLTS data and portray experiences of secondary-age students declassified from special education.

Products: Project staff plan to disseminate findings through conference presentations, journal articles, newsletter columns, and electronic media. In addition, the project will maintain a mailing list of individuals working in the field of special education outcomes and will send semiannual summaries of findings to mailing list participants.

Research in Self-Determination of Students with Cognitive Disabilities

GRANT NUMBER: H023C40126

Principal Investigator: **Wehmeyer, Michael**
The Arc National Headquarters
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817-261-6003

Beginning Date: 10/1/94
Ending Date: 9/30/99

Purpose: This project will conduct an empirical examination of the causal relationship between self-determination and positive adult outcomes through a longitudinal follow-along study of school graduates with cognitive disabilities, including mental retardation and learning disabilities.

Method: This project spans five areas of research that staff members will conduct over a period of 5 years. First, through a longitudinal follow-along study, staff members will explore the causal relationship between self-determination and adult outcomes. Using precollected data related to self-determination status and demographic information, project staff will monitor participants' progress at 1 and 3 years after graduation, including employment status, postsecondary education status, marital status, and perceived quality of life. Participants recruited for this component will include students (N=150) with mild to moderate levels of mental retardation and severe learning disabilities. Self-determination assessments will include five domains: (1) autonomy; (2) self-regulation; (3) self-actualization; (4) perceptions of psychological empowerment; and (5) perceptions of self. In the second, third, and fourth components, staff will describe the development of self-determination through various means, including a longitudinal study of perceptions of control and attributions of academic achievement. Students ranging in age from 8 to 19 will participate, including those with mental retardation, learning disabilities, and no disabilities. During each project year, staff will assess each student on various measures studying locus of control, perceptions of helplessness, and other research foci. The final area of research involves the development and field testing of a model of teaching that distributes the responsibility for learning among teachers, parents, and students, giving primary control to the student. Participating students will be the primary agents for choices and decisions at each phase of the model's development.

Products: Project research activities will result in data detailing the causal link between self-determination and adult outcomes and describing the developmental course of constituent elements of self-determination. Project demonstration activities will result in the validation of a model of teaching that can be used to promote self-determination. Project materials will be distributed to national organizations, journals, and conferences.

SECTION 8

SERIOUS EMOTIONAL DISTURBANCE AND BEHAVIORAL DISORDERS

Improving the Lives of Children: An SED Primary Prevention Project

GRANT NUMBER: H237F40012

Principal Investigator: **Algozzine, Bob**
University of North Carolina at Charlotte
College of Education
Office of Educational Research
Charlotte, NC 28223
704-547-2912

Beginning Date: 7/1/94
Ending Date: 6/30/98

Purpose: The project will implement and assess interventions enabling schools to provide positively oriented instruction, curricula, and support services needed to prevent students receiving special education for emotional and behavioral problems from developing serious emotional disturbance (SED).

Method: The project will proceed over a 4-year period in three phases. During Phase 1--intervention refinement--project staff will identify concerns and form working intervention groups, and identify and develop instrumentation and specific tracking procedures for target students. To develop tracking procedures, staff will define students at risk for SED and describe a set of identifying predictors. Staff will also collect baseline data for comparison groups. Phase 2--intervention implementation--will focus on full implementation of various multienvironment interventions and on compiled data related to them. Intervention efforts will include screening and identification of target groups including those currently receiving special education services (N=100) and students identified as at risk (N=100). These students will come from backgrounds of poverty, live in violent neighborhoods, are likely to drop out of school, or are likely to develop high rates of school recorded behavior problems. Two hours of observation will be allotted for each participating student, through four 30-minute periods. In Phase 3--final follow-up and dissemination--project staff will complete evaluation, report data relevant to the change process, pursue ways to continue some interventions that require financial resources beyond what schools can provide, and develop easy-to-read manuals on guidelines and strategies for implementing various interventions in other elementary schools to prevent SED among students with emotional and social problems. Additional training will be implemented for school personnel, community agency personnel, family members, and others to broaden project impact.

Products: This project will result in an increase in the number of least restrictive environments, and in specific documents usable by policy makers. This project will also improve prevention of SED among youth.

Project ACCEPT (Actualizing Cultural Competence in Educational Preventive Techniques)

GRANT NUMBER: H237G60026

Principal Investigator: **Bounds, Betsy**
Tucson Unified School District
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Tucson, AZ 85719
520-617-7322

Beginning Date: 9/1/96
Ending Date: 8/31/99

Purpose: To develop and implement an innovative, nondiscriminatory, culturally competent, collaborative demonstration model to improve services for students with serious emotional disturbance (SED), and to provide prevention, early intervention, and crisis intervention services for students with emotional and behavioral problems through an interagency collaboration model.

Method: A cross-cultural team will work in collaboration with a coordinator, a behavior specialist, and a case manager. Several agencies will work with project staff to develop preventive strategies and to provide input on program development and/or parent training. During the first phase, training will be provided to a designated "student advocate" at each participating school, focusing on preventive strategies and cultural competence. A diagnostic prescriptive center will be established in collaboration with the Arizona Children's Home, a community-based service provider, with interns and consultation provided through cooperation with the University of Arizona Department of Special Education and Rehabilitation. The case manager will also work with parents to support transition back into the child's home school.

Products: Expected outcomes include increased cultural competency for staff, a reduction of students (especially minority group students) in SED placements, and improved behavior among referred students. Training materials and evaluation findings will be distributed to local, regional, and national groups through journal articles, presentations at conferences, and networking with other school districts and postsecondary agencies. Project staff will also be available to provide technical assistance to agencies interested in replicating the model.

A Pilot Study on a Curriculum Designed To Promote Positive Social/Emotional Development and Positive Behavior Using a Developmental-Organizational Framework

GRANT NUMBER: H023B60039

Principal Investigators: **Bricker, Diane/**
Yockelson, Suzanne (Student)
University of Oregon
5219 University of Oregon
Eugene, OR 97403-5219
541-346-2599

Beginning Date: 8/1/96
Ending Date: 7/31/97

Purpose: To pilot a curriculum which is designed to prevent and/or remediate behavior disorders in children who are at risk for developing school-related behavior disorders due to environmental risk factors such as poverty, abuse, neglect, familial drug or alcohol abuse, teen parents, and exposure to violence.

Method: Foster parents from Lane County, Oregon, will be trained in the Behavioral Ages and Stages Curriculum (BASC) and in embedding targeted goals into everyday activities. The 8-week treatment phase will consist of pre-training and weekly home visits, followed by an 8-week maintenance phase. All foster parents will be asked to rate their degree of satisfaction with the BASC, as well their perceived competence following intervention. Foster parents will also be interviewed using an open-ended format about the training, the curriculum, and the measures. Data will be collected and analyzed for treatment fidelity, parent behaviors, and child outcomes.

Products: Information concerning the project's major characteristics, operating procedures, intervention curriculum, outcome data, and training manuals will be disseminated through inservice training and consultations, monographs, university seminars, and an ERIC document.

School Preparedness for Promoting the Personal and Social Development of Students with Emotional and Behavioral Problems Including Those with SED

GRANT NUMBER: H237C20003

Principal Investigator: **Bryan, Tanis H.**
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College of Education
Division of Curriculum and Instruction
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602-965-1644

Beginning Date: 10/1/92
Ending Date: 10/31/96

Purpose: The purpose of this program is to provide educational experiences through a novel social science curriculum that is explicitly designed to promote the personal and social development of junior high school students with emotional and behavioral problems.

Method: Through experiential, hands-on activities, teams of students with disabilities and nondisabled students will learn basic principles governing human behavior that relate to the social perceptual, cognitive and behavioral deficits of students with emotional and behavioral problems. By structuring the environment so that these students can learn important social skills and be responded to in positive ways as they acquire new skills, it is expected that these students will become more self efficacious and show improvements in their social status and relationships, with a concomitant decrease in aversive, maladaptive behaviors. A team of teachers will collaborate to integrate the curriculum with science, social studies and math, including a component providing specific interventions for reducing maladaptive behaviors. The project will be initially implemented in a segregated school for students with serious emotional handicaps and behavioral disorders, to be expanded in the second year to a junior high school where students with emotional and behavioral disorders are mainstreamed. In the third year the program will be expanded for use with high school students.

Products: The social science curriculum will be packaged for widespread dissemination, including teacher and student manuals and workbooks. The proposed project is expected to produce student gains in content knowledge, social skills, self efficacy, and self esteem and teacher gains in level of willingness and skills needed to work effectively with SED students in mainstreamed settings.

Investigation of the Institution-to-Community Transition Experiences of Adolescents with Emotional and Behavioral Disorders

GRANT NUMBER: H023C50172

Principal Investigator: **Bullis, Michael**
University of Oregon
Dept. of Special Education and Community Resources
275 College of Education
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541-346-1645

Beginning Date: 10/1/93
Ending Date: 9/30/98

Purpose: The project will conduct a follow-along investigation of the institution-to-community transition of adolescents with emotional and behavioral disorders (EBD), who have been incarcerated for their extreme antisocial behaviors.

Method: Data on roughly 300 to 400 adolescents with EBD will be gathered on their release from institutional facilities in the state of Oregon. At referral, demographic, SES, level of service, and social skill rating forms will be completed on each person. Between 3 and 9 interviews will be administered to each individual by telephone at 6-month intervals. Interview questions will pertain to subjects' vocational, educational, social, independent living, and general community adjustment. Similar interviews will be administered to subjects' parent/guardian and probation/parole officers. Employment data will also be checked yearly with a state-wide database. Data will then be examined using logistic regression techniques and LISREL procedures to examine relationships among multiple predictor and outcome constructs.

Products: The project will establish baseline data on the adjustment of individuals exiting these institutions. The participation of key state level administrators is expected to substantially augment dissemination plans. By disseminating information on the findings and procedures employed in this project, the project hopes to instigate similar projects in other regions to improve the adjustment and quality of life among this population.

Project SERVE: Support for the Emotional, Residential, Vocational, and Educational Needs of Adolescents with EBD

GRANT NUMBER: H237F50039

Principal Investigator: **Bullis, Michael**
University of Oregon
Dept. of Special Education and Community Resources
275 College of Education
Eugene, OR 97403
541-346-1645

Beginning Date: 10/1/95
Ending Date: 9/30/99

Purpose: The project will provide vocational services and service management to adolescents with emotional and behavioral problems, and to examine the effects of these interventions on both in-project and post-project experiences and outcomes among participants.

Method: Participating adolescents will be referred to the project and assigned a Service Coordination Specialist, who will work in conjunction with the adolescents and his/her family to plan and implement these services. After exiting the school setting, services will be arranged to continue through a support network from different community agencies (including vocational rehabilitation, Job Training Partnerships, and Social Security offices). A comprehensive data collection systems will be used to describe empirically the student and his or her presenting behaviors and the types and intensity of services that are provided to each participant. To examine post-project impact of the services, participants will be tracked through individual interviews and review of extant state-level data sets on criminal and employment activities to profile their transition experiences.

Products: Dissemination activities and projects will include presentations at professional conferences, articles for submission to professional journals, and a project newsletter for quarterly distribution to education and human services agencies as well as parents, teachers and other stakeholders. Upon the project's completion a monograph describing the data collection procedures, results, and service delivery recommendations will be produced.

Life On The Outs — Qualitative Investigation of Resilience

GRANT NUMBER: H023C50150

Principal Investigator: **Bullis, Michael**
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Beginning Date: 1/1/95
Ending Date: 9/30/00

Purpose: The project will conduct an intensive qualitative investigation of the institution-to-community transition of adolescents with emotional and behavioral disorders who have been incarcerated in the two most secure juvenile correctional facilities in Oregon.

Method: The research will seek to define the variables and events that differentiate those persons who leave the facilities and are successful in their transition efforts versus those who are not successful. This process will contribute to the development and refinement of a grounded theory on resilience and its meaning in the transition experiences of this population. The project will dovetail with and parallel a quantitative study already in process in which staff are gathering extensive data on the demographic characteristics and institutional and transitional experiences of 400-500 male and female adolescents from these facilities. In Phase 1, staff will investigate childhood and adolescent experiences which contribute to resiliency by conducting a life history study of a sample of successful (employed, in school, no re-arrests) and unsuccessful participants from the quantitative project who have been out for 1 to 2 years already. Throughout the five project years staff will continue with longitudinal investigations of their lives in the community, describing and contrasting the characteristics, experiences, and supports of those who do or do not succeed in transitioning into community life. Phase 2 will be a focused exploration of specific factors contributing to resilience, based on interviews with selected informants. In Phase 3, staff will conduct systematic member checks to test the validity of theories of resilience with respondents, interviewees, and knowledgeable others. In Phase 4, staff will prepare the study products for dissemination.

Products: Planned products include: a holistic model of the construct of resilience, based on the experiences and perspectives of participants themselves; and a collection of case studies illustrating the model and outlining the life histories of participants. Extensive efforts will be made to disseminate results and products to other professionals, sites, parents, and consumer groups both regionally and nationally.

Developing Effective Secondary School-Based Practices for Youth with Serious Emotional Disturbance: The High School/High Skill Project

GRANT NUMBER: H237H60022

Principal Investigator: **Bullis, Michael**
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541-346-1645

Beginning Date: 10/1/96
Ending Date: 9/30/99

Purpose: To evaluate the differential effects on adolescents with serious emotional disturbances (SED) of an intervention program consisting of social support, interagency collaboration, competitive work placements, and focused high skill curricular offerings.

Method: The central thesis of this project is that by providing adolescents who have SED with focused, adapted professional technical education (PTE) instruction in high skill level occupations, staff can help them achieve at higher levels than peers not receiving such services. Key components of this service project will include: (a) self-directed transition planning; (b) provision of service management and support; © an integrated support system composed of community agencies; (d) competitive work experiences; (e) social support and social skill training offered through direct instruction and peer mentoring; and (f) data collection documenting students' in-project and post-project experiences. The program will develop, evaluate, and implement curricula and instructional preparation in two high skill occupations locally in demand, in conjunction with existing school-to-work and PTE teachers and classes. Students with SED will choose to be in one of three groups: no special services; placement in the current service option for adolescents with SED; and placement in the current service option plus the PTE curriculum areas. Outcome analysis will include exploring possible differential effects of intervention on males versus females.

Products: Field-tested curricula in two different occupational areas will be published for use in the district and for dissemination to other interested parties. A set of procedures will also be published for developing integrated curricula that help students with disabilities acquire solid academic and occupational skills within regular settings. At least three articles will be written and submitted to professional journals, and presentations at national conferences are planned for years 3 and 4. Dissemination plans also include provisions for reaching state agencies, parent organizations, and preservice university programs.

Project Community Approach to Improving Child Success (Project CAICS)

GRANT NUMBER: H237G50045

Principal Investigator: **Byrd, Carla**
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Beginning Date: 8/1/95
Ending Date: 6/30/98

Purpose: The project will create a comprehensive program to address the problem of unequal distribution of children with behavior problems or serious emotional disturbance (SED) to special education classes through a combination of models based on systems theory.

Method: Project CAICS will work with three groups of students: (1) those students at any grade or level who are classified as seriously emotionally disturbed based upon a thorough Child Study Team assessment; (2) those students identified by individual schools in grades K-8 as part of their ongoing search for improved effectiveness with all children; and (3) those students whose background suggests they are at risk of developing SED as they progress through school. The project will intervene with these students by assisting regular education teachers to adopt specific techniques and strategies, assisting building administrators in addressing school environmental problems that help to trigger negative behaviors, and training staff in basic techniques to reduce cross-cultural misunderstandings. The project will also work with pre-high school programs to institute curricular and instructional approaches to teaching all students the skills necessary to succeed in school. The community will support this approach by coordinating and expanding community activities which foster the development of peaceful and cooperative conflict resolution skills. The community and the school will jointly develop the details of project actions through a set of advisory panels. Each participating teacher will receive staff development and training over an eight-month period to reinforce learning of both recommended techniques and their underlying philosophy. This component will directly seek to reform the institutional culture of participating schools relative to the population of students whose behavior has been a major concern for years.

Products: At the project's conclusion, staff expect to find fewer students classified as SED due to emotional and behavior reasons which are not deeply rooted in factors beyond the control of the family. This will translate to less restrictive learning environments for more students, fewer discipline problems in the schools, and a lower operating cost for special education programs.

Designing Educational Support Teams through Interagency Networks for Youth with Serious Emotional Disturbance (DESTINY-SED)

GRANT NUMBER: H237D30012

Principal Investigator: **Cheney, Douglas**
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Institute on Emotional Disabilities 229 Main Street
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Beginning Date: 9/01/93
Ending Date: 11/30/96

Purpose: This project will provide training and support for families and professionals in the fields of education, social work, and mental health to improve services for children and youth with serious emotional disturbances.

Method: In each of six communities, a research team from the Institute on Emotional Disabilities will work with the middle schools and the local Child and Adolescent Service Systems Program (CASSP) teams to collaboratively identify staff development needs. Staff development objectives will be phrased in terms of knowledge, skills, and strategies that project participants will be expected to use in their practice with professionals, students, and families. Particular objectives will focus on the areas of collaboration among project participants and on ways to apply knowledge, skills, and strategies. Student progress will be closely monitored through data on school attendance and involvement, social competence, and achievement, as well by project staff and teacher rating scales, in-school record reviews, and responses from community agencies and parents.

Products: Staff development is expected to motivate and empower participants to accomplish new goals in the workplace, and renew their commitment to achieve desirable outcomes for youth with serious emotional disturbances. By focusing on teachers and students in the middle school years, the project intends to impact on students' social and academic involvement in school and better prepare students for high school completion, vocational placements, and entry in to productive adult living.

Self-Monitoring: Its Effects on Behavior, Academic Performance, Self-Concept, and Locus of Control of African-American Male Adolescents with Emotional and Behavior Disorders

GRANT NUMBER: H023B60030

Principal Investigators: **Daniels, Vera I./**
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Beginning Date: 8/16/96
Ending Date: 8/16/97

Purpose: To determine the extent to which self-monitoring increases on-task behaviors of African-American male adolescents with emotional and behavioral disorders, examine the relationship between self-monitoring and academic performance, and examine the relationship between self-monitoring and self-concept, considering locus of control as an intervening variable.

Method: Participants will be six African-American male adolescents, ages 13-17, with emotional and behavioral disorders in the Baton Rouge Parish (Louisiana) School System. Observational research methods consistent with a multiple baseline design will be used to examine and evaluate the effects of a self-monitoring intervention. Outcome measures will include each participant's self-monitoring frequency graphs in nontreatment, treatment, and generalization settings, as well as a social validation scale and scores on self-concept and locus of control scales.

Products: Project results will be shared at local and state levels. Proposals to present project findings will be submitted to professional conferences, and an effort will be made to publish findings in special education publications.

Preventing the Development of Serious Emotional Disturbance among Children and Youth with Emotional and Behavioral Problems

GRANT NUMBER: H237F50036

Principal Investigator: **Fitzgerald, Martha**
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802-656-8551

Beginning Date: 4/1/95
Ending Date: 3/31/99

Purpose: The project will test a school-based model for preventing serious emotional disturbance (SED) in young children, ages kindergarten through second grade, using team building and instructional support strategies implemented by a parent/teacher led collaborative team.

Method: During the first two years of the project, 1000 kindergarten children in four school districts (one urban and three rural) will be screened for externalizing or internalizing behaviors which would place them at risk for developing more severe emotional/behavioral problems. Children assigned to Intervention A (N=50) will be served by a Prevention Team for two years beginning in the summer following kindergarten and extending through second grade. Children assigned to Intervention B (N=50) will receive classroom instruction in social skills, also extending through second grade.

Products: Submissions will be made to special education publications and project findings will be presented at regional and national conferences. In an effort to reach parents, findings will be rewritten to suit the needs of the popular press and submitted to parenting publications. Cassette tapes will also be produced from these materials, and a professional videotape of findings will be produced for presentation to parents, teachers, and other service providers in schools and other educational settings nationwide. Staff will make periodic information postings to electronic information networks.

Linkages to Learning: An Integrated Multi-Agency, School-based Program for the Delivery of Health, Mental Health & Social Services to Students and their Families

GRANT NUMBER: H237F50014

Principal Investigator: **Fox, Nathan A.**
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Beginning Date: 9/1/95
Ending Date: 8/31/99

Purpose: The project will implement and evaluate the effectiveness of "Linkages to Learning," a collaborative, multi-agency, school-based program designed to facilitate, coordinate, and deliver a comprehensive array of health and human services to students and their families.

Method: This project will take place in a racially and ethnically diverse elementary school setting (using 400 students) in a high-need area of Montgomery County, Maryland. Major activities will include: (1) carrying out a variety of outreach and information activities to educate students, parents, and teachers about the full range of health and human services available to them at and through the schools; and (2) using a coordinated case management approach to facilitate and coordinate the referral, assessment, case management, and delivery of health and human services to students and their families within the school setting. Direct services will include: (1) individual, group, and family counseling to address students' and parents' social and emotional problems; (2) educational support for students, including academic tutoring and mentoring; (3) social skills training and self-esteem enhancement programs for students; (4) parental assistance for financial, housing, legal, child care, and psychological problems; (5) health education and coordination of health services and referrals; (6) parent skills training and education workshops; and (7) consultations, workshops, and support for teachers working with students with social and emotional problems.

Products: Results from this project will be circulated beyond the traditional outlets of the scientific community to ensure that useful information reaches school personnel and other direct service providers interested in implementing similar programs. Findings will also be published in an array of peer-refereed scientific journals and book chapters representing the fields of education, public health, counseling, and psychology. In addition, findings will be presented at a variety of national meetings.

A Model Mentor/Advisor Program Supporting Secondary School Youth with Emotional and Behavioral Challenges and Their Families in Rural Vermont

GRANT NUMBER: H237H60024

Principal Investigator: **Fox, Wayne L.**
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Beginning Date: 10/1/96
Ending Date: 9/30/00

Purpose: To design, implement, evaluate, and disseminate a model mentor/advisor program to improve educational outcomes for youth with serious emotional disturbances (SED) or at risk for developing serious emotional disturbances.

Method: The proposed model consists of four closely interrelated components emphasizing student empowerment and promoting positive self-esteem. The model will be implemented initially in one rural Vermont secondary school and will be replicated in a second high school during the final 2 years of the project. Model components include: a mentor/advisor who meets regularly with a small group of 6 to 12 heterogeneously grouped students; a Personal Learning Plan for each student, developed with family and mentor guidance; an annual service learning project to be identified, developed, carried out, and evaluated by the students; and mentor/advisor collaboration to provide continuing support for mentor/advisors and for system change. Project staff will provide extensive technical assistance, training, and on-site support to mentor/advisors, family members, educators, staff from local agencies, and the community as a whole. Measures have been selected to directly assess the impact of the proposed mentor/advisor model components on project participants, with appropriate comparisons to control groups.

Products: The plan for disseminating project findings includes the World Wide Web, electronic mail, a replication manual, presentations, and journal articles designed to reach the widest possible audience.

Promoting Attention, Literacy, and Socialization (PALS) among Students with Emotional/Behavioral Disorders

GRANT NUMBER: H023C40001

Principal Investigators: **Fuchs, Lynn S./**
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Beginning Date: 9/1/94
Ending Date: 8/31/97

Purpose: This project will use Adaptive Peer Tutoring to enhance the task engagement, reading achievement, prosocial behavior and quality of generalized peer interactions, social status, and degree of inclusion in mainstream settings for students with emotional/behavioral disorders (EBD).

Method: During the first year of this 3-year project, PALS staff will implement, formatively evaluate, and modify existing Adaptive Peer Tutoring methods to maximize their feasibility and efficacy for students with EBD. In Year 2, staff will develop additional training procedures designed to extend participating students' capacity to explain difficult materials to peers and to develop prosocial interaction styles. At this time, staff will also examine the added value of this component to existing Adaptive Peer Tutoring methods. In Year 3, project staff will develop Adaptive Peer Tutoring further and explore its efficacy for helping students with EBD make successful adjustments to general education reading classes. Staff members will contrast typical reintegration methods to those in which Adaptive Peer Tutoring is implemented in both special and regular education settings to facilitate the mainstreaming effort. During each project year, participating teachers (N=20) of students with EBD will implement treatments will all students in their classrooms and will identify study participants (N=120). Classroom observations during Adaptive Peer Tutoring will be conducted to assess the fidelity of treatment. Direct observation methodology will be employed during reading instruction to index task engagement and prosocial interactions. Videotapes of generalization sessions will be coded to evaluate quality of peer interactions. Staff will also use pre/post individual multidimensional assessments, peer sociometric ratings, and questionnaires to monitor levels of student interaction and achievement.

Products: This project will result in modified Adaptive Peer Tutoring methods that specifically maximize benefits and feasibility for students with EBD, extended Adaptive Peer Tutoring procedures designed to help students with EBD make successful transitions to general education, and a teacher training manual and video explaining the implementation of these enhanced Adaptive Peer Tutoring methods with students with EBD in both special and mainstream reading instruction classes.

Self-Management Behavioral Interventions with American Indian Adolescents Diagnosed as Serious Emotionally Disturbed and/or Behavior Disordered

GRANT NUMBER: H023B60026

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Beginning Date: 8/1/96
Ending Date: 7/31/97

Purpose: To design and use culturally relevant self-monitoring components to meet the needs of Native American adolescents who have been diagnosed as seriously emotionally disturbed/behavior disordered (SED/BD).

Method: The project will feature the use of culturally relevant self-instruction procedures with six Native American SED/BD adolescents at the middle school level. The first stage of the project will be designed to increase students' on-task behaviors during a 10-minute independent reading or math assignment. The second stage will examine the subjects' reading and math assignments before and during the intervention to evaluate whether or not increased on-task behaviors improved their academic performance. A single subject research design will be implemented across subjects to determine the functional relationship between intervention and students' on-task behaviors.

Products: Inservice training will be provided to share project results with other special education and regular education teachers. Findings will also be forwarded for publication to journals covering Native American educational matters and behavior disorders. Results will also be submitted to tribal colleges for further in-service presentations to teachers and practitioners who work with Native American SED/BD adolescents.

World of Difference: A Culturally-Competent Demonstration Model to Improve Services for Students with Serious Emotional Disturbance (SED) and to Develop Prevention Services for Students with Emotional and Behavioral Problems

GRANT NUMBER: H237G50055

Beginning Date: 9/1/95
Ending Date: 8/31/98

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Purpose: The purpose of this project is to develop and demonstrate a collaborative model of culturally competent intervention and prevention services designed to address the current gaps in service delivery to students at risk and students with serious emotional disturbance (SED).

Method: The project will establish four model classroom sites of students at risk of having SED and students with SED where the most successful collaborations among teachers, paraprofessionals, mental health providers, students, and family members will be replicated. Two classes will consist of approximately 12 third to fifth grade Hispanic students classified as learning disabled and at risk for serious emotional disturbances. The other two classes will consist of approximately 10 predominantly African-American third to fifth grade students already classified as SED. Tutors from San Francisco State University's Special Education Department Minority Outreach Program will provide tutoring, encouragement, support and mentoring to students. Teachers, paraprofessionals, and tutor/mentors will receive intensive training and resource materials regarding the use of culturally competent instructional strategies designed to capitalize on students' diversity and individual strengths. Family members will be provided with information and training regarding mental health issues, learning disabilities and serious emotional disturbances, instructional practices, and ways in which families can provide emotional and academic support to their children. Onsite service and after-school consultant time will be increased as well.

Products: Project results will be disseminated to family members at community meetings, while dissemination to mental health providers will take place in the form of workshops to be coordinated with the professional development personnel of each department. Further dissemination will be filtered through the school district-wide professional development system and channeled through collaborating institutions to reach beyond the immediate target population.

Proactive Home-School Programming for the Prevention of Serious Emotional Disturbance in Children with Behavior Problems

GRANT NUMBER: H237F50019

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913-321-3143

Beginning Date: 8/1/95
Ending Date: 7/31/99

Purpose: This project will outline a program of proactive home-school prevention which directly targets "protective" and "risk" factors to increase social, behavioral, and academic competencies.

Method: The school-based component of the program will include: (1) social skills groups including instruction in prosocial behaviors, training in problem solving, incidental teaching, and reinforcement procedures for generalization of skill usage; and (2) peer tutoring in reading and comprehension skills. The home-based component will include: (1) parent-child activities and monitoring schedules for increasing positive parent-child interaction and supervision; and (2) parent-led play/recreation groups for reinforcement of prosocial skills. The third level prevention component will provide systematic functional assessment and analysis of environments to determine conditions maintaining resistant behaviors with consequent intervention for behavioral improvement, as well as liaison work with community-based agencies to facilitate family services. The investigation will include three elementary school sites in an intensive quality-controlled program for 36 to 45 children, with a control group.

Products: Expected outcomes include increased, positive adult and peer interaction, improved compliance and behaviors, increased engagement and learning, and improved social competence. The following products will be developed in order to further dissemination efforts: papers presenting findings to state and national conferences; independent study university course work; written reports and program descriptions to be distributed at state, local, and federal levels; and articles on findings for submission to appropriate professional journals.

The Development of the Obsessive-Compulsive Disorder School Impact Scale: An Investigation Using the Accuracy-Reliability Paradigm for Scale Validation

GRANT NUMBER: H023B60024

Principal Investigators: **Kratochwill, Thomas/**
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Beginning Date: 7/1/96
Ending Date: 6/30/97

Purpose: To develop a rating scale and direct observation measure for use by school personnel to monitor the treatment of Obsessive-Compulsive Disorder (OCD) on a case-specific basis.

Method: Participants will include three school-age children with OCD, their parents and teachers, and 10-12 professionals specializing in OCD. The accuracy-reliability measurement paradigm will be used to validate a new rating scale and a direct observation measure. Phase One will consist of a 3-month period to organize the project and prepare instrumentation. Phase Two will involve conducting problem identification interviews and refining the instruments to meet the needs of specific cases. The third phase will involve videotaping the children at school, verifying the videotape's representativeness with parents and teachers, and sending the videotape and instruments to various experts. During Phase Four, the instruments' accuracy will be analyzed. In Phase Five, the parents, teachers, and graduate observers will view the videotapes and use the associated instruments and materials to rate the children's behavior.

Products: Following completion of these phases, a dissertation defense will be written. The project will serve as a prototypical process for the development of psychometrically and qualitatively sound outcome assessment measures for other childhood behavior disorders requiring special education. Co-investigators will prepare articles for publication in major educational and psychological journals, and will submit papers for presentation at national, state, and regional meetings of regular and special educators and related service personnel.

Project SUCCESS: Preventing the Development of SED Among Children with Emotional and Behavioral Problems

GRANT NUMBER: H237F40022

Principal Investigator: **Montague, Marjorie**
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Beginning Date: 7/1/94
Ending Date: 6/30/98

Purpose: The purpose of this project is to conduct research into the prevention of the development of Serious Emotional Disturbance (SED) in elementary school students with behavioral and emotional problems through intervention based on multidisciplinary literature.

Method: In the first of 4 project years, staff will finalize the case study "best practices" theory and scenario, develop the case study protocol and pilot the protocol. The pilot test will include interviews with kindergarten teachers and the review of specific documents for relevance. Staff will then plan and conduct inservice training for participating teachers and other school personnel. During this year, staff will also screen students in each participating school, collect and analyze data, evaluate and manage the project, and work to collaborate with other SED projects. During the following 3 project years, staff will conduct assessment of family needs and strengths of families of at-risk children, and will conduct functional assessments through interviews. Staff will ask teachers for their perceptions of the environmental conditions under which at-risk children in their classes display desirable or undesirable behaviors. Interviewed teachers will begin testing hypotheses developed on the bases of functional assessment interviews. Staff will then develop Family Service Plans (FSPs), and implement the educational child-centered components and the family-focused components. Once FSPs have been implemented, staff will collect and analyze case study data using the case study protocol developed in Year 1, and analyze school records/accumulative folders for at-risk children in grades 1 and 2. Staff will also survey comparison schools about identification of SED in 1st and 2nd grade children, and will collect data on personal and social attributes on the Student Self-Concept Scale (SSCS), Social Skills Rating System (SSRS), Classroom Behavior Inventory (CBI), and peer ratings and nominations (PRN). Finally, staff will disseminate results, and work further to collaborate with other Office of Special Education (OSEP) projects.

Products: Project SUCCESS will result in a validated model for: (1) identifying students with such serious emotional and behavioral problems that they are at risk for SED; (2) conducting functional assessments of at-risk children; (3) developing classroom interventions; (4) coordinating multiple services based on family strengths/needs; and (5) ensuring the delivery of culturally competent services to students and their families.

Center to Promote Collaboration and Communication of Effective Practices for Children with, or At Risk of Developing, Serious Emotional Disturbance

GRANT NUMBER: H237T60005

Principal Investigator: **Osher, David**
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Beginning Date: 10/1/96
Ending Date: 9/30/01

Purpose: Children with, or at risk of developing, serious emotional disturbance (SED) achieve dismal educational and social outcomes. At present, there is a significant gap between what is known from research and model programs, and current practices. An innovative center to promote coordination and communication of effective practices can surmount the barriers to collaboration and knowledge use in the multi-disciplinary, multi-stakeholder, multi-ethnic context in which children and youth with SED are served.

Method: The Center will engage in a series of strategic activities to help SED community members to develop a greater capacity to produce, access, and use information, and to collaborate operationally. These activities are organized around facilitating and expanding interagency collaboration, facilitating the identification and development of useful and usable information, facilitating access to and exchange of information, and collaborating with related federal centers. Activities will address barriers to improving practice and sustaining collaboration; be driven by the needs of those who will use the information; link different knowledge communities in a sustained manner; address barriers to effective information use and exchange; align with, build upon, and enhance the capacity of the federal and state infrastructure that supports knowledge development and use; and reach out to historically marginalized groups. Diverse consumer, practice, and research communities will join the Center through expert teams to contribute to multidisciplinary, multi-stakeholder work groups. Strategic alliances with national organizations and centers will extend the Center's capacity to reach target audiences. Operational ties to state and local programs will reflect the range of services, settings, and challenges that effective approaches must address.

Products: The Center will identify and synthesize knowledge to address the needs of diverse end-users (e.g., family members) and present the information in formats that they can easily and effectively use.

Nondiscriminatory, Culturally-Competent, Collaborative Demonstration Model to Provide Services for Children and Youth with Serious Emotional Disturbance and Prevention Services for Children and Youth at Risk of Developing Serious Emotional Disturbance (Project Impact)

GRANT NUMBER: H237G50029

Principal Investigator: **Repeck, Sally**
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313-252-1764

Beginning Date: 10/1/95
Ending Date: 9/30/98

Purpose: This project will provide a community-based program focused on preventing and treating children with serious emotional disturbance (SED) in a culturally competent manner, using families as a key component.

Method: Project Impact will target approximately 50 predominantly African-American students, some of whom are in special education classes, between the ages of 12 and 15, who are exhibiting dysfunctional behaviors and are considered to have SED or are at risk for SED. During the planning phase, needs and strengths will be determined through the use of community forums involving students, families, service providers, community educators, leaders, and businesses, and by surveying families and students regarding what they view as their own most important needs. Project staff will identify community resources and individuals that are willing and able to provide services to children with SED and their families. Teachers and project staff will be provided with training and staff development focusing on cultural sensitivity, and culturally competent assessment instruments will be developed to help evaluate children showing signs of SED and their families. In order to increase access to and utilization of mental health services, location of services, service providers, services provided, service hours, and outreach to the community by providers will be closely examined. Project staff will ensure that during initial meetings with children and families, service providers stress the role and importance of the family in the design and implementation of the services the child will receive. Project Impact will train and utilize family advocates from the community to help families prepare for these initial meetings. Direct service methods and interventions that are planned include: recognition of and intervention in social problems; group therapy; family-focused therapy; in-home services; crisis intervention and problem solving services; didactic and educational approaches; community-level interactions; and appreciation and recognition of cultural issues and problems.

Nondiscriminatory, Culturally-Competent, Collaborative Demonstration Model to Provide Services for Children and Youth with Serious Emotional Disturbance and Prevention Services for Children and Youth at Risk of Developing Serious Emotional Disturbance (Project Impact) (cont.)

Products: By collaboratively creating and implementing culturally competent services designed to prevent and treat SED in African-American children, this project will prevent future costs by enabling families to care for their children and access appropriate services, helping prevent and reduce out-of-home placement costs. Through the Easter Seals network and the Wayne County Regional Educational Service Agency, staff will be able to actively disseminate project information using inservice training, newsletters, meetings, and other media.

Persistence Plus: Using Check and Connect Procedures for Students with SED

GRANT NUMBER: H237H60012

Principal Investigator: **Sinclair, Mary**
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Beginning Date: 8/1/96
Ending Date: 7/31/00

Purpose: To field test the Check and Connect procedure, an empirically validated dropout prevention and intervention strategy for urban middle school youth with learning and emotional/behavioral disabilities), in order to improve service delivery and post-school outcomes.

Method: Interventions will focus on the individual needs and personal development of the student, empowering families to provide educational support to their adolescents, and making changes in the delivery of services. A "monitor" will work with each group of students through graduation, moving with students and families from program to program, actively facilitating regular communication, promoting access to services, and keeping educational progress a foremost concern. Approximately 100 students will be targeted for intervention beginning in grade 9 and continuing for 4 years. Data will be collected on several key constructs: participation in school; identification with school; academic, social, and behavioral performance; school and family support for learning and transition services; and participant satisfaction.

Products: In year 1, an informational brochure will be developed for community awareness. One newsletter or journal article will be drafted each year for publication. By year 4, a user-friendly procedure manual will be developed, describing the Check and Connect procedure and including a component for promoting parent involvement and complementary monitoring strategies. A summary report will also be developed in the fourth year, as will a final technical report. Presentation proposals will also be submitted to national professional associations and meetings.

Preventing Serious Emotional Disturbance: Research on School-Wide Conflict Resolution with Peer Mediation

GRANT NUMBER: H237F50028

Principal Investigator: **Smith, Stephen W.**
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Beginning Date: 8/1/95
Ending Date: 7/31/99

Purpose: The project will assist students in developing the interpersonal skills necessary to manage their own conflicts through a school-based conflict resolution/peer mediation program with community and family linkages.

Method: In the first year of the program, staff will work collaboratively with middle school professionals, parents, and community representatives to: (1) develop a curriculum; (2) train school professionals and students in the curriculum and its implementation; (3) access, develop, and validate data collection instruments; and (4) establish data collection programs. The conflict resolution/peer mediation (CR/PM) program will also be piloted in this year. During the second year, staff will fully implement the CR/PM program in two treatment schools and use two matched middle schools as delayed treatment or control, while also seeking opportunities for impact through parent and community groups. In the third year, staff will fully implement the CR/PM program in the two delayed treatment schools and monitor the program in the original treatment schools as they assume full responsibility for its implementation, while continuing involvement in home and community-based settings. During the fourth year of the project, staff will collect data in all four schools as the delayed treatment schools disengage from project personnel and continue to collect generalization data on all high school students who graduated from the four middle schools.

Products: This project will provide a model for future research in the area by providing a theoretical base as a model, a validated curriculum and training protocol for teachers and student mediators, implementation protocols, validated data collection methodology, and efficacy and generalization data.

Kakao'o 'ia Na Lei

GRANT NUMBER: H237G50052

Principal Investigator: **Stodden, Robert A.**
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Beginning Date: 7/1/95
Ending Date: 6/30/98

Purpose: The project will develop and demonstrate a model to recruit and train natural paraprofessional care givers from the community to support teachers and parents in creating school and family environments that foster the psychosocial and intellectual development of Native Hawaiian students with or at risk for serious emotional disturbances (SED).

Method: Phase I of the process will involve building and maintaining a team of stakeholders with a common vision for a seamless system of culturally competent and nondiscriminatory services. Team members will be recruited based on the criteria that they have strong connections to the Native Hawaiian community and have expressed a desire to help it address its' problems. Phase II will employ a five-step framework to guide team members through review and discrepancy analysis of desired and existing services: (1) team members will explore and determine outcomes expected of students following completion of their educational programs; (2) team members will review educational and related services proven successful in contributing to these outcomes for minority group students; (3) team members will review current practices with a focus on their cultural competency and efficacy for Native Hawaiian students; (4) team members will decide what current practices need to be improved, and how; and (5) team members will analyze how identified skills and behaviors can best be imparted to both professionals and natural care givers. In Phase III, project staff will launch the implementation of innovations and recommended improvements in training and services. It is anticipated that the resulting natural care giver training program will last for 11 months with a strong emphasis on field activities and practica.

Products: The project will develop curricula for natural care givers and professionals; evaluation reports; a replication package; and journal articles and conference presentations. Expected results for Native Hawaiian students with or at risk for SED include a decrease in proportions of students identified with SED, improved school attendance and performance, lower dropout rates, greater family involvement in service planning and delivery, increased satisfaction with services, decreases in inappropriate behaviors, improved self-concept and self-esteem, and higher rates of achieving IEP goals.

New Pathways for Children and Parents

GRANT NUMBER: H237G60012

Principal Investigator: **Ulrich, Grace**
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Beginning Date: 8/1/96
Ending Date: 8/31/00

Purpose: To provide culturally sensitive, collaborative, community-based services to children (ages 5-10) with severe emotional disturbance (SED), as well as children at risk for SED diagnosis and their families.

Method: This program will provide a 2-year intervention for 420 SED and at-risk students, with a focus on family bonding and involvement. School teams will circulate behavior checklists to teachers and staff and will compile results to identify students for participation. Supportive data will be gathered from attendance records, discipline reports, academic and social history, and psychological evaluation when available. On the basis of these records and a family interview, a determination of eligibility will be made. Interventions will include: planned and shared family meals and activity time; an 8-week parent training and support group; an 8-week "Children Are People" curriculum emphasizing self-control; an ongoing monthly education/support session for families graduating from the 8-week program; case management services; and referrals to appropriate collaborating agencies for services not provided by New Pathways. At the end of each child's participation, scores on the Quay-Peterson Revised Behavior Checklist will be compared to scores achieved at intake to provide pretest/posttest evaluation.

Products: Publications to result from this project include: curriculum and supportive material manuals for both the child and adult programs; operating guidelines and materials for ongoing support sessions; and a comprehensive manual detailing how to establish, conduct, and evaluate a replication project.

SECTION 9

SEVERE DISABILITIES

Auditory Characteristics of Children with Autism

GRANT NUMBER: H023C50076

Principal Investigator: **Bess, Fred H.**
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Beginning Date: 7/1/95
Ending Date: 6/30/98

Purpose: The project will determine whether hearing sensitivity of children with autism differs from that of children who are normally developing. The investigators will assess whether children with autism experience greater hypo- or hypersensitivity to auditory stimuli than children who are normally developing. The project will also establish whether traditional behavioral audiometric techniques are practical and reliable in the audiologic assessment of this population.

Method: Three basic experiments are planned. Experiment I examines the hearing sensitivity of children with autism as compared to a control group of children who are normally developing matched by race, gender and developmental age with the experimental group. A test battery of appropriate behavioral and electrophysiological audiologic measures will be employed. Experiment II is designed to determine whether children with autism demonstrate excessive hypo- or hypersensitivity as compared to a matched control group. Observers will view videotapes of children listening to various auditory stimuli and rate the subjects on a scale of attentiveness. Experiment III will examine the practicability and replicability of traditional behavioral audiometric tests used with children with autism. For Experiments I and II, researchers will utilize 20 subjects who have been diagnosed with childhood autism, as well as 20 children who are normally developing. In Experiment III, these 40 subjects will be reassessed to determine test/re-test reliability of the behavioral audiometric procedures. Analysis of variance and basic t-tests will be used to evaluate differences between the groups in auditory measures.

Products: Findings from these experiments will be disseminated through presentations at state and national conferences attended by speech-language pathologists, audiologists, educators, and special educators. Results will also be published in refereed journals and the project staff will provide consultant services for regional and local special education personnel.

Expanding Behavioral Momentum: Linking High-Probability Requests and Peer Interactions to Promote Skill Acquisition and Generalization in Young Children with Severe Disabilities

GRANT NUMBER: H023C30089

Principal Investigators: **Davis, Carol A./**
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Beginning Date: 9/1/93
Ending Date: 8/31/98

Purpose: The project will expand previous work in behavioral momentum by embedding the high-probability request sequence into peer social interactions, then using these sequences to promote social, motor, communication, and self-help skills.

Method: Participants in the research will be young children with severe disabilities. Across the various studies the children will be identified as: (1) socially withdrawn or isolate; (2) experiencing substantial motor impairments that limit their abilities to reach, grasp, manipulate objects, maintain head control or move through space; and (3) lacking in expressive communication systems, and/or lacking functional and important self help skills. Observational research methods combined with a series of multiple baseline designs will be used to examine and evaluate the effects of the momentum interventions. Outcomes measured across the series of studies will include each participant's performance of high and low probability requests including: (1) social interactions; (2) motor actions; (3) communication responses; and (4) self-help skills.

Products: Results of individual studies will be used to develop an empirically-based, socially validated curriculum that can be used by professionals and parents to teach children with severe disabilities across settings and developmental domains. Dissemination activities planned include manuscripts describing research results for publication in professional journals, conference presentations, employment of the Educational Resource Information Center (ERIC), and a training manual to facilitate replication.

Systematic Instruction of Persons with Profound Disabilities (Project SIPP)

GRANT NUMBER: H023C40115

Principal Investigators: **Gast, David/ Logan, Kent**
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706-542-5069

Beginning Date: 9/1/94
Ending Date: 8/31/97

Purpose: This collaborative effort between the University of Georgia and Gwinnett County Public Schools will study the effectiveness of instructional strategies for students with profound cognitive disabilities. The project will study more-to-least prompts and graduated guidance and develop a manual for service providers on effective instructional strategies for students with profound cognitive disabilities.

Method: Subjects will be students with profound cognitive disabilities who presently attend integrated school programs. Four to six students will be included in each investigation. Data will be collected by the students' teachers under the supervision of project Staff. A multiple baseline or multiple probe design will be used in the investigations. Data will be collected on acquisition, fluency, generalization in both instructional and home environments, and maintenance of the objectives. Data collected will be type and number of prompts given, frequency of correct independent responses, trials to criterion, errors to criterion, instructional time to criterion, response latency, response duration, and criterion for mastery. Staff will select participating students, sites, and teachers, conduct analyses within activities for selection of basic developmental skills to be taught, train teachers and implement experimental procedures, interview parents to ascertain if the child has increased his or her level of partial participation in family routines, and disseminate results. Staff will then develop a manual that describes: (1) the results of investigations; (2) the effectiveness of the strategies; (3) considerations in choosing prompts and reinforcing contingencies; (4) variables for deciding when to change prompts; and (5) considerations for the generalization of skills. The manual will also describe the results of generalization probes into the students' homes.

Products: This project will result in a module summarizing investigation results for special education teachers that will provide a format for faculty to teach teacher trainees relevant information about effective instruction for students with profound cognitive disabilities and a manual that will help special education teachers teach these students as well.

A Longitudinal Study of Generalization and Maintenance in Integration Settings for Students with Autism

GRANT NUMBER: H023C30055

Principal Investigator: **Kamps, Debra M.**
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913-321-3143

Beginning Date: 7/1/93
Ending Date: 6/30/98

Purpose: This project will continue previous investigations of procedures for mainstreaming and integration of children with autism.

Method: Project objectives include: (1) longitudinal ecobehavioral analysis of existing integration programs for students with autism including identification of successful components and/or weaknesses; (2) building upon these findings to carefully plan generalization studies to increase integration time and success; (3) replication studies for effective generalization strategies with follow-up; (4) pilot studies in middle schools including environmental assessments, integration, and generalization studies. These goals have been designed to extend current integration technology, to expand the knowledge base to include generalization procedures, to investigate self-monitoring and continue documentation of peer-involved activities in integrated environments, to provide middle school demonstrations, to monitor program effects in the areas of academic, social and behavioral competence for students with autism and their peers, and to disseminate findings to improve the quality of life for all students.

Products: These studies and databases will provide a much needed evaluation of current and progressively improving integration technology. Continuation of current research objectives is required to define a model, determine variables congruent with successful implementation, provide additional strategies to the knowledge base, address the issue of generalization of procedures, determine long-term effects and outcomes, and explore dissemination and training methods which ensure future adoption.

Project Reading ABC: An Alternative Reading Assessment Battery for Children with Severe Speech and Physical Impairments

GRANT NUMBER: H023F50011

Principal Investigator: **Koppenhaver, David A.**
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919-966-7486

Beginning Date: 1/1/96
Ending Date: 12/31/98

Purpose: The project will assemble an interdisciplinary team of experts in assessment, literacy, and severe speech and physical impairments (SSPI) to systematically develop alternative reading assessments, including an alternative reading assessment battery for school-aged children with SSPI.

Method: Subjects will be school-aged children with SSPI as well as nondisabled peers matched for gender, race, native language, and developmental reading abilities. Children with SSPI will be sampled from assessment centers and concentrated instructional programs in Chicago, Illinois (N=15), Denver, Colorado (N=30), Plattsburgh, New York (N=10), Chapel Hill, NC (N=30), and Durham, NC (N=40). Assessment battery development will be initiated with the reading comprehension subtest. In Phase I, the research team will validate the existence and importance of a construct (i.e., knowledge, strategy, attitude) to be assessed by a particular subtest, review existing assessments of that construct for typically developing readers, and consult with reading and disability assessment authorities. In Phase II, the team will seek to develop prototypes of alternative ways to assess the construct for children with SSPI that have acceptable reliability. In Phase III, the team will seek to answer questions about the construct and predictive validity of the alternative assessments by comparing performance of nondisabled children on alternative and more traditional measures of the construct. In Phase IV, when the alternative reading assessment battery has demonstrated acceptable reliability and validity, the team will strengthen the case for validity of the alternative assessments across children of differing abilities, both within and between multiple measures.

Products: While the assessment battery itself will be the primary product of this project, plans for disseminating project findings include: research reports to be published through the Center for Literacy and Disability Studies; peer-reviewed journal publications in literacy and disability journals; newsletter and bulletin board system articles; conference presentations; oral presentations in workshops, guest lectures, and courses conducted by staff of the CLDS; and publication, marketing, and distribution of the test battery itself by Communication SkillBuilders within the Psychological Corporation.

Rethinking Social Interventions for Young Children with Autism

GRANT NUMBER: H023C40113

Principal Investigator: **McGee, Gail**
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Emory Autism Research Center
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404-727-8350

Beginning Date: 9/1/94
Ending Date: 8/30/97

Purpose: The project will extend knowledge of environmental and other influences on the social behavior of students with autism by incorporating information on naturally occurring behaviors.

Method: A series of conditional probability analyses will be conducted to examine environmental relationships that correspond to the display of crucial social behaviors in students with autism. Findings on normal developmental trends in peer interactions will suggest additional educational goals, and comparisons of typical and atypical development will have implications for the design of instructional procedures that will better generalize and maintain. A set of observational conditions will be specified in a protocol which will permit more efficient assessment of children's peer-related social behavior. The assessment format will be validated via comparison to an extensive naturalistic database. The resulting product should prove useful to early intervention specialists and preschool educators, as well as to researchers. Functional analyses will be conducted to determine whether the social interests delineated in the individual descriptive analyses can be used to control improved social responding. The experimental conditions will be educational intervention that make use of children's social interests as reinforcers, and that incorporate information on environmental influences of successful social behavior.

Products: Research findings will be packaged in user-friendly formats, and advance arrangements will be made for on-request conversion to large print, Braille, or audio cassette. The primary dissemination path will highlight hands-on training of developing autism specialists.

Identifying Reinforcers for Students with Developmental Disabilities Who Are Difficult to Motivate: Promoting Skill Acquisition Maintenance, and Generalization

GRANT NUMBER: H023C40063

Principal Investigator: **Repp, Alan**
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815-756-2305

Beginning Date: 9/1/94
Ending Date: 8/31/98

Purpose: The project will conduct a series of studies on the reliability, predictive validity, generalization, cost-effectiveness, and social validity of three procedures for identifying reinforcers for functional skill learning by students with developmental disabilities.

Method: Two groups of 24 students from three educational agencies whom school personnel find either moderately difficult or very difficult to motivate have been identified. After training, two teachers will independently administer three reinforcement identification methods (RIM) for each student at two testing periods separated by 2 months. Alternate forms and test-retest reliability for each RIM will then be computed. The quality of the information of the RIMs will then be assessed by teaching the functional skills using the reinforcers identified by each method. Probes 3 and 6 months later in new training settings will be used to assess the predictive validity and generalizability of the RIMs. Measurement of staff time and a consumer satisfaction rating will allow comparisons to be made regarding cost-effectiveness and social validity.

Products: Dissemination activities will include development and provision of a training manual, videotape, workshops, newsletter, journal publications and presentations at national meetings.

A Comparative Study of Social Development of Children with Autism: An Ecological Approach

GRANT NUMBER: H023B50008

Principal Investigator: **Ruble, Lisa**
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Beginning Date: 1/1/96
Ending Date: 12/31/96

Purpose: This project will examine in detail the development of social behaviors of individuals with autism, comparing these behaviors to those of control subjects matched for gender, age, and Intelligence Quotient (IQ).

Method: Eight children with autism, ages 5 through 11, will be selected by IQ and gender criteria. Ecological methods of narrative recording in the natural environment will be applied to study the behavior of individuals in home and school settings. Subjects will be observed for half a day in their natural environments, including 2 to 3 hours during structured activities and 2 to 3 hours during free and open activities. Behavior of children will then be compared during structured and free times in home and school settings. After data has been transcribed and analyzed, it will be analyzed according to ecological methods.

Products: The study of social development in autism will aid researchers attempting to understand the fundamental nature of the disability, also allowing for participation by subjects often excluded from previous research. A greater understanding of social development will help professionals and families design more appropriate and meaningful interventions and treatments. Project staff plan on presenting findings at a national conference and writing up results for possible journal publication.

SECTION 10

TEACHER TRAINING, RETENTION, AND SUPPLY AND DEMAND

Trends in Teacher Entry, Retention, Turnover, Attrition, and Shortage in Special Education

GRANT NUMBER: H023C40102

Principal Investigator: **Boe, Erling**
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Beginning Date: 7/1/94
Ending Date: 12/31/97

Purpose: This project will analyze comprehensively trends over time in the entry, retention, turnover, teaching field transfer, and attrition of special education teachers (SETs) on the national level.

Method: Project research is based on three iterations of two sets of sample surveys conducted by the National Center for Education Statistics (NCES), USDE, which will include the Schools and Staffing Surveys (SASS), and the Teacher Followup Surveys (TFS). The SASS are composed of several basic questionnaires administered by mail with extensive telephone follow-up. A stratified systematic probability proportionate-to-size selection procedure was used to draw the SASS sample. The TFS provides the only database at the national level for the study of attrition from the teaching profession with a representative sample of teachers. A major feature of the database is the inclusion of follow-up interviews of teachers who: (1) were retained in their teaching positions; (2) transferred to different teaching positions; and (3) left the teaching profession entirely. This project provides the application of a multidimensional model for tracking teacher career transitions using three iterations of two national sample surveys. All statistical analyses will be based on the national estimates of teachers computed by applying appropriate weights to the numbers of teachers in their respective samples. The project will continue for a 42-month period, and the pace of the project has been designed in relation to the amount of personnel resources budgeted and the availability of the SASS and TFS data bases for research.

Products: As a result of this project, a large amount of new information will be provided about the national status of, and trends in SET entry, retention, turnover, teaching field transfer, attrition, and shortage. The project will also result in considerable insight into the dynamics of the SET teacher force and the teacher shortage problem.

Teacher Preparation for Diverse Classrooms: Performance-Based Assessment of Beginning Teachers

GRANT NUMBER: H023B50041

Principal Investigator: **Daunic, Ann P.**
University of Florida
Department of Special Education
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352-392-0701

Beginning Date: 9/1/95
Ending Date: 10/31/96

Purpose: This project will use a performance-based assessment model to examine the effects of preservice preparation factors on the degree to which beginning teachers use culturally responsive teaching (CRT).

Method: The primary tool of assessment will be Praxis III, a performance-based assessment for beginning teachers developed at the Educational Testing Service. Research staff will examine how the following three preservice factors impact the practice of CRT by beginning teachers: (1) preparation in general vs. special education teacher education programs; (2) levels of preservice teacher preparation in cultural issues; and (3) preservice university preparation. Using Praxis III, investigators will gather records of evidence for 70 beginning teachers from general and special teacher education programs at four universities in Florida. Evidence will be gathered from teacher and classroom profiles, pre- and post-observation interviews, and observations. These records will be analyzed with both qualitative (MANOVA) and quantitative methods.

Products: Project findings are expected to enhance the knowledge base of teacher educators regarding preservice factors that may affect the practice of CRT by beginning teachers. Final products of the study will be disseminated through professional journals and conference presentations to enhance the research base and provide methodological information to researchers in cultural diversity, teacher education, and teacher assessment.

Development and Validation of a Partnership-Consultation-Collaboration-Professional Development Model to Bridge the Gap Between Research and Practice

GRANT NUMBER: H023G50012

Principal Investigator: **Greenwood, Charles R.**
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Schiefelbusch Institute for Life Span Studies
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913-321-3143

Beginning Date: 8/1/95
Ending Date: 7/31/99

Purpose: The project will articulate, implement, evaluate and disseminate an existing model designed to improve the practices of special and regular education teachers and of parents in inner-city communities.

Method: Participants in the project will include 975 students (195 with disabilities), their parents, 36 teachers and administrative staff of three school buildings in three school districts, and 10 researchers. Two of these schools will be from economically disadvantaged (over 35% in poverty) urban communities. Key components of the model to establish and maintain sustained research-practice relationships between researchers and practitioners will address partnership, collaboration, consultation, and professional development. Using a multiple baseline design across schools and a multi-method (qualitative and quantitative) measurement model, functional relationships between use of the model and changes in implementation of practices, instructional processes, and products/outcomes on students with and without disabilities will be examined. Additional participants will include the staff and students of a third, out-of-state replication school that will serve as an independent replication site for the model prior to national dissemination.

Products: In addition to direct benefits to participants, the project will result in new knowledge in the form of empirical and qualitative findings concerning the model, its components, processes, products, and outcomes. This knowledge will be published in the professional literature and used in preservice teacher training. This knowledge will also be represented in a "blueprint" of training, materials, media, and technology for replication in local schools.

SECTION 11

TECHNOLOGY AND SOFTWARE

Project CONNECT: Content-Area-Literacy via Networked Notetaking for Exceptional Children and Teachers

GRANT NUMBER: H180G40066

Principal Investigator: **Anderson-Inman, Lynne**
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Beginning Date: 10/1/94
Ending Date: 9/30/97

Purpose: The project will research the benefits of synchronous notetaking strategies using portable laptop computers and a wireless network.

Method: Participating students will be selected from three populations for whom notetaking in regular content area classes is often difficult: students with learning disabilities, students with severe hearing impairments, and students with severe upper extremity dysfunction. All participating students will be provided with Macintosh PowerBooks for regular class notetaking and will be assisted by trained notetakers using the same equipment. These laptop computers will be linked wirelessly and together they will create notes from class presentations and discussions using synchronous writing software. Data will be gathered to (a) uncover the specific notetaking strategies most important for different types of students, (b) determine effective ways for students to manipulate and use the notes for studying outside of class, and © explore ways to increase students' independence and personal responsibility for the notetaking process.

Products: A technical report will be written at the end of each project year describing and summarizing the results of research efforts to date. Researchers have arranged for the provision of the software used at a discounted price to schools along with project training materials and a descriptive videotape. Findings will also be submitted to professional publications and presented at conferences on state, regional, and national levels.

Training Hispanic Teachers to Develop English Literacy Lessons Using Hispanic Culture and Multimedia Technology

GRANT NUMBER: H180G50035

Principal Investigator: **Andrews, Jean F.**
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409-880-8170

Beginning Date: 7/1/95
Ending Date: 6/30/98

Purpose: The project plans to increase the English literacy skills of Hispanic students who are deaf through the use of Hispanic cultural themes presented via multimedia.

Method: This project will (1) train teachers who teach students who are deaf from Hispanic backgrounds to use multimedia technology; (2) train teachers to develop literacy software centering around the theme of Hispanic culture at elementary, junior high, and high school levels; (3) implement and evaluate these literacy lessons in classrooms with Hispanic students who are deaf; and (4) disseminate a series of prototypical Hispanic-oriented multimedia CD-ROMs containing literacy lessons which are designed for users who are deaf. In addition to multimedia adaptations of popular Hispanic children's books, the CD-ROM lessons will include biographical sketches of successful Hispanic adults who are deaf. Vocabulary enrichment will be supported through the inclusion of visual demonstrations of key terms as expressed in English and Spanish sign language.

Products: During the three-year project, staff expect to develop five CD-ROM literacy instruction packages. Each CD will contain 10-15 literacy lessons featuring Hispanic culture. Topics will include: children's stories, legends, festivals, proverbs, crafts, jokes, folktales, art, poetry, history, recipes, and games. Narration and text on the CDS will include English written text as well as spoken English and Spanish, signed English and American Sign Language, and Spanish written text. Annual progress reports and other articles on the project will be prepared for submission to Lamar University publications as well as local, state, and national media.

A Computerized Assessment Environment to Promote Literacy in Assessment for Individuals with Disabilities

GRANT NUMBER: H180G50015

Principal Investigator: **Burk, Martha**
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Washington, DC 20009
202-265-6443

Beginning Date: 3/1/95
Ending Date: 2/28/98

Purpose: The project will conduct the second phase of research to (1) assess the overall efficiency and desirability of a computerized testing environment for individuals with disabilities, and (2) to systematically investigate the effects of specific modifications on test performance of students with disabilities, with the goal of improving the performance on tests and increased inclusion of students in district assessment performances.

Method: In Phase I of this research, 53 special education teachers and related service personnel were surveyed to determine the most common problems that special education students have in taking tests and the most common modifications used. Data from this phase will be incorporated into Phase II analysis, and software developed as a result of this research will be used in Phase II experiments. After Phase I research is used to identify tests and test items currently in use that can be used in a computerized testing environment for assessing students with disabilities, staff will investigate the effectiveness and suitability of the computerized testing environment for administering tests and delivering test modifications for students with disabilities. The effects of specific computer-delivered modifications on test performance of students with specific disabilities will be systematically investigated. Finally, data will be evaluated in preparation for dissemination of results, including suggestions for continuing experimental comparison of performance on computerized modified tests with traditional test administration procedures, both modified and unmodified. The computerized assessment environment will be field-tested in four diverse special education departments representing different geographic, demographic, and administrative characteristics.

Products: Results of research will be disseminated in two reports and also through publication and presentation of research results. The first report will contain a description of the project design, a description of prototype software design, and a project evaluation section. The second report will be written for school district management personnel, and will outline the costs and benefits of using the model for student assessment and test development.

Project BRIDGE: Bridging the Gap Between Research and Practice

GRANT NUMBER: H180U60012

Principal Investigator: **Carnine, Douglas**
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Beginning Date: 9/1/95
Ending Date: 8/30/99

Purpose: To evaluate the effects of a policy that involves close monitoring of student performance data, comparison of local results with results from comparable students in research studies, and making necessary modifications in professional development during local technology, media, and materials (TMM) implementation to reach target performance levels.

Method: During the first project phase, a prototype policy will be developed and evaluated around a group of studies validating various aspects of the BIG Accommodation TMM for middle school students with disabilities taught in regular classrooms. The BIG Accommodation is an integrated curriculum teaching students with disabilities high-level problem-solving and reasoning strategies in science, mathematics, history, writing, and critical thinking. This approach incorporates interactive videodiscs, multimedia CD-ROM presentations, and other TMM. In the second phase, a generic BRIDGE policy will be developed and evaluated, with data from the field test used to identify where success levels of participating students with disabilities do or do not match success levels of students in previous research. Policies and/or professional development programs will be altered in response to these identified strengths and failings. Field testing will take place in urban and/or economically disadvantaged communities, and replication of the BRIDGE model will occur in large urban areas where a research and dissemination network is already active.

Products: The final product will be manuals for use in professional development to enable local school personnel to adopt and implement the BRIDGE policy. A manual will also be issued as a second volume of the Handbook for Site Councils, to be disseminated through professional development work with site councils throughout Oregon.

Institute to Improve the Quality of Technology, Educational Media, and Materials for Individuals with Disabilities

GRANT NUMBER: HS96013001

Principal Investigator: **Carnine, Douglas**
National Center to Improve the Tools of Educators
Institute for the Development of Educational Achievement
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541-346-5131

Beginning Date: 9/30/96
Ending Date: 9/29/01

Purpose: To apply national leadership and achieve widespread, long-term, and systemic changes that will improve the quality and effectiveness of technology, educational media, and materials (TMM) for individuals with disabilities. To encourage the appropriate development of TMM and inform decision makers about the acquisition and use of TMM to enhance outcomes for students with disabilities.

Method: The Institute will build a network of partnerships to support quality TMM and their appropriate use, create an infrastructure for developing and using quality TMM, and implement the infrastructure to build capacity for developing and using quality TMM. These goals will be realized through partnerships with governmental groups, the education profession, and external groups. The Institute will use a social marketing approach to recruit new partners and to educate the public and decision makers. Additional approaches will include introducing incentives for development and use of TMM; influencing revisions in the adoption process; and increasing capacity regarding TMM for publishers, end users, and researchers.

Products: Products will include: (1) prototype content standards prepared for California; (2) a research review of experimental studies of pedagogy in mathematics and reading; (3) procedures for consolidating, refining, and field-testing a model for identifying quality TMM and its appropriate use; and (4) procedures for consolidating, refining, and field-testing a model for identifying replicable high performing schools that appropriately use an array of quality TMM. Other products will be developed in conjunction with NCITE partners.

Implementing Technology Related Policy in the Schools; Fostering Ownership and Change at the Local Level through Participatory Action Research.

GRANT NUMBER: H180U50022

Principal Investigators: **Cortina, Mary**
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Beginning Date: 10/1/95
Ending Date: 9/30/98

Purpose: The project will foster ownership among all stakeholders and thus create real change at the local level in response to state guidelines on the implementation of the IDEA's technology-related mandates.

Method: In Phase I, the project will enable stakeholders in school districts to: (1) understand the intent of state guidelines for assistive technology planning; (2) assess the impact of the existing assistive technology and training systems upon the provision and integration of technology for students with disabilities; and (3) develop an agenda for change. During Phase II, project staff will assist participating school districts in implementing their assistive technology objectives and plans. In Phase III, a variety of descriptive and outcome data will be collected and analyzed to allow schools to evaluate their implementation activities and plan for the remaining project period. Reports will be drafted for each participating district, outlining those factors which inhibit or promote - the ordering and purchasing of assistive technology; use of assistive technology by students with disabilities, as well as by teachers and administrators; formation of school-based teams; effective technology training; and the integration of technology in the curriculum. Phase IV will consist of dissemination activities, and will additionally focus on the transfer of ownership back to participating districts.

Products: The project training curriculum will be formatted into a manual for use by school districts as they prepare to implement a technology project in their school districts. Concrete examples of project activities and specific procedures and technical assistance developed to enhance project outcomes will also be included. Materials will be adapted on request in accessible formats such as diskettes, large print, Spanish, and Braille. The State Department of Education will work with project staff to produce training and informational teleseminars for school district staff. Staff will also pursue the possibility of presenting project findings at professional conferences.

Video Feedforward To Promote Reading, Communication, and Effective Judgements by Young Children with Disabilities

GRANT NUMBER: H180G60031

Principal Investigator: **Dowrick, Peter W.**
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215-895-3256

Beginning Date: 1/1/96
Ending Date: 5/31/99

Purpose: To explore the effects of individual video feedforward on literacy outcomes for children in a tutored reading program.

Method: During the first project year, all students in second grade in the two participating schools will be screened for learning disabilities and attention deficit/hyperactivity syndrome, and eight will be identified for "extended pilot" testing of protocols for the Reading Rescue program, including eight weeks of tutored reading practice and selected video interventions. After refinement of these procedures, a second cohort of children in grades 1 and 2 with reading problems will be brought into the study. Students in the feedforward group will receive an individualized self-modeling video of themselves reading fluently and coping with the frustrations of reading difficulties. Students in a practice group will observe a video of a child in the same grade practicing reading. Both of these groups will receive structured reading practice assignments from community aides, who will have been trained using a demonstration video and tutoring sessions. The remaining students will be monitored in a waitlist group. In Year Two 35 more students will be added to the study, and will be assessed, assigned to groups, and offered services in similar fashion to the first year. Staff will collect video footage and other material to begin the packaging of training, and selected school staff will be trained to continue project procedures after funding ends. In Year 3, 15 students will be added, and all waitlisted students will be offered services before the project ends. Additional formative case study interventions will be developed around students with attention deficits. Staff will complete data collection, analyze and report results, and begin dissemination.

Products: Articles describing project results will be published in major education and disability-related journals. Staff will conduct workshops in another state to facilitate replication at another site. The program itself will be packaged for replication, assisted by a major publisher.

Technology-Enhanced Learning Environments: A University and School Partnership for Development, Implementation, and Assessment of a Multimedia Literacy Curriculum

GRANT NUMBER: H180G60008

Principal Investigator: **Englert, Carol Sue**
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517-355-1835

Beginning Date: 8/16/96
Ending Date: 8/15/99

Purpose: To collaborate with teachers on the development, implementation, and evaluation of a curricular approach that uses multimedia technology to teach literacy skills as well as comprehension and composition strategies to elementary students with mild disabilities.

Method: In Study 1, researchers and special education teachers will implement and evaluate the effectiveness of a curricular approach that emphasizes knowledge-construction through the use of technology. Analyses will focus on effects of the curricular approach on students' literacy achievement, strategy knowledge, and self-perceived competence. In addition, researchers will examine the features and uses of technology that enhance or detract from the literacy performance of students. Participants in this study are expected to include four collaborating teachers, 44 experimental students, and 44 control students. Experimental students will mostly be students with learning disabilities, with small subsets of students with educable mental retardation and/or emotional impairments. In Study 2, the curricular approach will be revised and embedded in language or content area subjects to evaluate the effectiveness of the technological tools when they are infused into the general education curriculum. Pretest and posttest data will be collected on the performance of special education students, with specific attention paid to data on the extent to which the curricular approach can be incorporated as part of the "regular curriculum" and the relative effectiveness of the curricular approach employed in regular versus special education settings.

Products: A disseminable curricular approach will be made available to advance teachers' knowledge and practices related to the improvement of literacy instruction and learning of students with mild disabilities through technology use. Two computer software packages will be developed and refined through this research: HyperReports and Thematic Learning Logs. The project will also lead to the creation of CD-ROMs as library resources for students, a curriculum resource for teachers, and a database for research. By the end of the project, staff anticipate the publication of at least five research papers, six conference presentations, and three papers describing the curricular approach.

Experimental Validation of the Effects of Assistive Writing Technologies on the Literacy of Students with Disabilities

GRANT NUMBER: H180G40065

Principal Investigator: **Fifield, Bryce**
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208-885-6849

Beginning Date: 7/1/94
Ending Date: 6/30/97

Purpose: This project will conduct a program of single subject research which, when mapped into a comprehensive conceptual model, will establish the effects of assistive writing technologies such as voice recognition, word prediction programs, and alternative keyboard systems on the writing skills and literacy of children and youth who have disabilities.

Method: Following collection of baseline data on the writing skills of students by teachers, a technology specialist and project staff will establish the experimental conditions of the research study. Training in the operation and maintenance of assistive writing technology will be provided to school staff, as will training in the procedures for collecting weekly assessment data. After collection and analysis of project data, weekly teacher follow-up will be conducted by phone. Writing technology will be reconfigured as needed, and in service and training support will be provided for ongoing integration of writing technology.

Products: In addition to submission of articles on project findings to relevant professional journals, project staff will produce a series of technical reports detailing project findings. Findings will also be presented at professional meetings, and copies of training curriculum materials will be made available to interested parties.

Achieving Curriculum Inclusion and Integrating Technology with Instruction Through Backward Mapping and Collaborative Action Research

GRANT NUMBER: H180U60037

Principal Investigator: **Gersten, Russell**
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541-342-1553

Beginning Date: 12/1/96
Ending Date: 11/30/99

Purpose: To analyze technology use, policies, and implementation practices within three states and three local school districts.

Method: Strand One will consist of a policy analysis using focus groups, review of critical documents, key informant interviews, and direct classroom observations. Staff will examine discrepancies, misinterpretations, and unintended effects of policy at the school/classroom level in Oregon, Massachusetts, and Maryland. Analysis will provide a baseline description of SEA and LEA policies concerning access to and implementation of technology for students with learning disabilities, and how these policies actually play out at the classroom level. Strand Two will consist of two collaborative action research studies involving 20 students with learning disabilities at each of two sites in Oregon and Massachusetts. These studies will develop an instructional and professional development approach merging state-of-the-art technology with recent advances in instruction, focusing on conceptually based teaching of key concepts and issues in 20th century American civilization using a widely available software package for electronic concept mapping. Strand Three will focus on synthesis and dissemination activities, including a return to policy analysis and generation of policy recommendations using a "backward mapping" method.

Products: Staff will develop a report delineating similarities and differences across states and communities, and articulating relationships among strategies in the National Agenda for Technology, Media, and Materials for students with disabilities. A range of dissemination materials will also be developed for urban communities with culturally and linguistically diverse populations.

Functional Literacy for Decision-Making: Personal Computers as Metacognitive Tools for Youth with Mild/Moderate Mental Retardation

GRANT NUMBER: H180G60029

Principal Investigator: **Gersten, Russell**
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541-342-1553

Beginning Date: 7/10/96
Ending Date: 6/30/99

Purpose: To conduct qualitative and quantitative research to determine the effectiveness of this personal information management software in providing experiences and opportunities that improve the functional literacy of students with developmental disabilities, and to understand factors that enhance or impede application of this technology.

Method: The proposed software is a graphically driven prototype providing youth with developmental disabilities with a personal information manager to help them organize personal activities, arrange their schedules, anticipate conflicts, select among alternatives, and coordinate with others. In Study One staff will conduct focus groups with teachers and families followed by a pilot experiment. This pilot study will refine and customize the software and training procedures, and will provide specific information on how teachers and parents can help students use the technology. In Study Two, staff will investigate effects of software use within a formal high school life skills instructional program, with separate groups of students using the software both at school and at home. Data will be drawn from a range of outcome measures of learning and psychosocial factors related to using assistive technology, as well as an in-depth qualitative study focusing on changes experienced by students and the perspectives of support staff.

Products: Products will include a further refinement of software tools for functional literacy and a set of training and instructional procedures for teaching and supporting youth with developmental disabilities in the use of assistive technology. Staff will disseminate project products and findings in a variety of alternative formats, including worldwide web publishing, cassette tapes, and video. Data design specifications will also be compiled for use by developers and curriculum designers in crafting computer-based technology products that will promote the inclusion and computer literacy of youth with mental retardation.

Promoting Literacy through Materials, Media and Technology Improvements in the Classwide Peer Tutoring Program: Research on the Effects of a Computerized Learning Management System

GRANT NUMBER: H180G60002

Principal Investigator: **Greenwood, Charles R.**
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913-321-3143

Beginning Date: 8/1/96
Ending Date: 7/31/99

Purpose: To investigate the benefits of integrating existing ClassWide Peer Tutoring research and products.

Method: A ClassWide Peer Tutoring (CWPT) Learning Management System will be developed using local area network technology to link and manage information, educational media to guide application and training, and other materials to support the peer-mediated curriculum. Within a three-year design, a prototype of this system will be investigated in terms of its effects on multiple indices of process, product, and user satisfaction when implemented in an elementary school. Participants and users will include 13 teachers and 325 students, including 65 with learning disabilities, behavior disorders, extreme mental retardation, developmental delays, and/or attention deficit-hyperactivity disorders. After testing the prototype using standard software development research designs, staff will validate the prototype in terms of: (a) teachers' implementation and satisfaction, and (b) students' literacy outcomes using single-subject, process-product, experimental research designs.

Products: The CWPT Local Management System software, manuals, media, and materials package will be disseminated to local education personnel via local districts, state education agencies, and the current CWPT publisher. Research findings will be disseminated via publications and presentations to special educators, technology researchers, and local education personnel. Graduate courses at Kansas University will include the procedures, results, and implications for practice of this project as part of their curriculum for preservice general and special educators.

Developing Technology, Media and Materials to Enhance Student Self-Determination Within Transition Planning

GRANT NUMBER: H180A40071

Principal Investigator: **Halpern, Andrew**
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Beginning Date: 7/1/94
Ending Date: 6/30/97

Purpose: The project will enhance the utilization of a transition planning strategy that incorporates a self-determination process as a foundation through the development of computer software, broadcast quality video tapes, and a wide array of materials.

Method: The three basic steps of this project will include the development of appropriate technology, materials, and media to support a transition planning strategy that enhances student self-determination within the IEP process, training a large sample of stakeholders on how to use the strategy, and training potential users and trainers of the strategy on how to use the transition planning strategy and its supporting materials. The achievement of student self-determination within the IEP process requires that students must: (1) forecast their long-range goals and anticipate how to reach them; (2) be able to learn their own strengths and weaknesses; and (3) have a workable strategy for using this information themselves. This approach should be supported by effective materials including technology and effective media supports. In order to meet these conditions, project staff will focus on a strong foundation of work in: (1) teaching adolescents with disabilities how to build a sense of self-empowerment; (2) developing assessment instruments in areas that pertain to transition; and (3) designing programs and developing materials that improve transition services in local communities. Student self-evaluation will include such areas of potential student achievement as academic skills, vocational skills, independent living skills, and personal/social skills. While teaching self-evaluation practices to students with disabilities through modifications of the Transition Skills Inventory, staff will develop procedures for negotiating differences of opinion, and will review other relevant standardized tests.

Products: This project will result in a series of training materials, software for a computerized management information system to support the overall strategy, and a set of objectives and tasks for addressing high priority program standards over the course of a year.

Telecommunications for All

GRANT NUMBER: H180J30025

Principal Investigator: **Harkins, Judith**
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Washington, DC 20002
202-651-5257

Beginning Date: 8/30/93
Ending Date: 8/29/96

Purpose: This project will develop systems for the assistive technology application of telecommunications for deaf children.

Method: Off-the-shelf and emerging communications technology will be tailored for improved access by children in school environments, and staff will develop systems, materials, and activities that enable and encourage telephone use based on the developmental level of the child. The project will begin with a needs assessment conducted at the schools, a survey of materials and curricula from other schools, and a review of all candidate products. A preliminary design of at least one system for providing an array of technologies at one site will be developed, followed by review by a panel of experts. The system will be assembled and software written to integrate the components, provide a user-friendly interface, and to provide tutorials and other information. The prototype system will initially be tested at schools closest to the research system, and then placed farther away as system reliability is established. The system will be evaluated for cost, reliability, technical support required, ease of use, training requirements, and impact on children's abilities to use visual telecommunications.

Products: The systems and materials generated will result in greater program accessibility and appropriateness for deaf children, use of telecommunications at earlier ages, and an accelerated program of instruction on visual telecommunications compared to the present case.

The Early Childhood Emergent Literacy Technology Project

GRANT NUMBER: H180G40078

Principal Investigator: **Hutinger, Patricia**	*Beginning Date:* 8/1/94
Western Illinois University	*Ending Date:* 7/31/97

Horrabin Hall, Room 27
Macomb, IL 61455
309-298-1634

Purpose: The purpose of this project is to describe and explain the effects of an Interactive Technology Literacy Curriculum (ITLC) on emergent literacy knowledge and abilities of 3-, 4-, and 5-year-old children who demonstrate mild to moderate disabilities.

Method: The study is designed in three phases, one phase per project year. Phase 1 will provide a description of the effects of implementing the ITLC in classrooms with three varying levels of technology available. Phase 2 will expand the Phase 1 sites with a non technological classroom and will test findings of Phase 1 site research. Phase 3 will continue to collect longitudinal data on both Phase 1 and Phase 2 sites. Data collection will include pre- and post-tests, observation, interviews, examination of records and materials, analysis of videotaped individual child behaviors, dyads, and small groups, content analysis, and other methods.

Products: This project will result in the evaluation of interactive commercial software, hypermedia software produced in the classroom and utility software such as graphics and story-making packages.

The Early Childhood Comprehensive Technology System (ECCTS)

GRANT NUMBER: H180U50039

Principal Investigator: **Hutinger, Patricia**
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309-298-1634

Beginning Date: 9/1/95
Ending Date: 8/31/98

Purpose: The project will advance the availability, quality, use, and effectiveness of technology in addressing the practical problem of improving technology access in early childhood programs at the local level.

Method: The study, which will use a qualitative approach, is designed to examine effects of a comprehensive system on three interwoven elements providing technology services to young children with disabilities including the learners and their families, professional and family development staff, and promoting policy. Together the ECCTS components will provide initial and ongoing child assessment, planning and implementing developmentally appropriate technology activities, transition services, staff development, family participation, administration, community involvement, and policy development. During the study, ECCTS will focus on integrated classrooms, children, staff, families, community schools, and state agencies with interests in assistive technology experiences for young children. 35 3- and 4-year-olds with moderate to severe disabilities that prevent them from interacting effectively with objects, people, and events in their environment will be the primary subjects. They are spread across 12 classrooms, each of which has a special education teacher and an early childhood teacher in conjunction with support staff. Tested procedures and materials will be adapted for model projects focusing on elements of the ECCTS system. Data to be gathered across the major components will include informally gathered pre- and post-test measures, observation, interviews, examination of records and materials, analysis of videotapes, content analysis, focus groups, and other methods. Component I data will specifically include records and videotapes of classroom activities as well as individual child behaviors, dyads, and small groups functioning during curricular activities.

Products: Study results will provide the field with information on the most effective strategies in terms of developing comprehensive technology systems that mesh with delivery systems. Awareness information on the project will be disseminated through news releases, television and radio, journal publications, electronic bulletin boards, and presentations during local, regional, and national presentations.

Integrating Speech Recognition Into the Classroom Interpreting Services of Mainstream Deaf and Hard-of-Hearing Students

GRANT NUMBER: H180A40006

Principal Investigator: **Jensema, Carl**
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301-593-2690

Beginning Date: 8/1/94
Ending Date: 7/31/97

Purpose: This project will develop techniques for integrating speech recognition within the sign language interpreting process, develop a training program and materials for teaching interpreters to use these techniques, and set up a nationwide "training-the-trainer" program to disseminate these techniques.

Method: Staff will first meet with Montgomery County Public School (MCPS) administrators to plan activities, select MCPS interpreters (N=4) and high school students with deafness (N=4) to participate, and select topic areas and classes. Staff will then obtain the DragonDictate speech recognition system as well as more advanced models (N=4), consisting of computers, sound capture boards, headsets, and a software package. Staff will also obtain copies of each of the high school textbooks used by MCPS in classes related to the selected topic. The index and glossary words from these textbooks will be checked against the words in the speech recognition system; any words not in the system will be added. Once all equipment has been installed, participating MCPS interpreters will train on the systems, and will help analyze classroom interpreting to determine strengths and weaknesses. Once basic techniques have been defined, a mock classroom learning situation will be conducted to allow participating interpreters and students to practice interpreting. Techniques and procedures developed by participants will then be evaluated for a total of 20 hours under actual classroom conditions including non-participating students (N=30) and a teacher. Once techniques have been approved, staff will develop materials and a training program for teaching interpreters to use speech recognition in class. Staff will then develop a "training the trainer" program to teach people how to use the training program in other classrooms and in different subjects.

Products: At least two journal articles will be submitted by the project staff. Staff will develop training materials for teaching classroom interpreters to use speech recognition. As a result of this project, interpreters (N=60) will be trained to use speech recognition, with special instruction on teaching others to use it.

Caption Speed and Viewer Comprehension of Television Programs

GRANT NUMBER: H180G60013

Principal Investigator: **Jensema, Carl**
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Beginning Date: 8/1/96
Ending Date: 7/30/99

Purpose: To explore the ability of viewers to read, understand, and retain the material presented in captioned television programming.

Method: Two studies will be done, one to explore understanding and retention of specific facts, the other to explore understanding and retention of overall story narrative. Both studies will select specific material to be taught, create testing procedures to measure understanding and retention of material, and create video segments with captioning at different speeds to present the material. Video segments from each study will be shown to approximately 240 subjects, and these subjects will be tested on their understanding and retention of the material presented. Test performance will be analyzed in terms of caption speed, age, degree of hearing loss, and other demographic and educational variables.

Products: The final report from this project will provide caption production companies with information to help them improve the quality of captioning by fitting caption speed to audience needs and ability. This report will be made widely available to the television industry and the Deaf/hard of hearing community. Conference presentations will be made in the areas of reading research, television, and hearing loss. At least three journal articles will be written and submitted for publication. Project staff will develop a mailing list of industry leaders and will distribute the final report and other materials to 400 of these key figures.

Project VISION: Visually Impaired Students and Internet Opportunities Now

GRANT NUMBER: H180T40008

Principal Investigator: **Kapperman, Gaylen**
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815-895-3078

Beginning Date: 1/1/95
Ending Date: 12/31/96

Purpose: This project will develop the methods and strategies by which students who have visual impairments can use assistive technology to gain access to the vast resources found on the Internet.

Method: Procedures involved in gaining access to the Internet using assistive technology by visually impaired persons will be task analyzed. A first draft of an instructional manual will be developed using this information. Eight students and their eight itinerant/resource teachers will be chosen from Illinois and Wisconsin high schools, and the appropriate assistive technology will be purchased. Teachers will be trained to use this technology in accessing the Internet, after which they will instruct their students in the methods and procedures developed by project staff. Students will further field test these procedures. During the second half of the academic year, a 30-minute videotape will be produced to document the project. After the close of the academic year, revisions will be made in the manual, and a plan for effective dissemination of project findings will be disseminated.

Products: The project manual (in all its formats) and copies of the videotape will be deposited in instructional materials centers for visually impaired students nationwide. The manual will also be submitted for publication and uploaded to the Internet. The videotape will be broadcast on Kaleidoscope (a disabilities television channel), and staff will appear on that network to describe the project and its findings.

Synthesis and Communication of Successful Intervention Strategies to Promote Generalization and Maintenance in Augmentative and Alternative Communication

GRANT NUMBER: H023E50014

Principal Investigator: **Karlan, George**
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Beginning Date: 7/1/95
Ending Date: 6/30/97

Purpose: This project will integrate and synthesize, using meta-analytic synthesis methods, the extant research literature on the effectiveness of strategies for promoting successful intervention, generalization and maintenance outcomes among users of augmentative and alternative communication (AAC) users.

Method: This project will extend previous efforts by (1) moving from subjective analyses in AAC to a systematic synthesis for integrating a body of intervention research; (2) focusing on AAC interventions that were not adequately represented in previous synthesis efforts from related fields; and (3) incorporating input from potential consumers regarding hypotheses and information products. Through the use of focus group methodology the project will produce an integration and synthesis that is responsive to the concerns about intervention outcomes of those educators, related service professionals, and parents directly involved in serving children and youth with severe communication impairments.

Products: Project findings will be presented in two major research forums, and will be summarized in a research-to-practice session for AAC practitioners. A practitioner-oriented version of project technical reports will be submitted to ERIC together with the search and selection protocols and coding manuals and recording sheets. Two research papers and two practitioner-oriented papers will be submitted for publication in refereed journals as well.

Assistive Technology in the Cognitive Realm: Tools for Daily Living

GRANT NUMBER: H180T40053

Principal Investigator: **Keating, Thomas**
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Beginning Date: 1/1/95
Ending Date: 12/31/96

Purpose: The project will utilize existing technologies to assist a group of adolescents and young adults with cognitive impairments to use technology to "work around" their cognitive limitations in terms of remembering and implementing metacognitive routines.

Method: This project will develop and implement a series of software modules to help users access relevant information and knowledge to improve the quality of their life in the community; develop skills for exercising increased personal autonomy in decision making; manage day-to-day living situations and challenges; and promote the development of increasingly sophisticated problem-solving strategies. Students aged 17-21 will be nominated by teachers for participation in the project. Interviews with subjects will examine their interests and needs so software packages can be tailored to meet these needs. Field testing will focus on the refinement of the graphic user interface, the user/prompt interaction sequences, and the kind of training needed to support users in their initial phases of learning and ongoing interaction with the system. Project evaluation will rely on the use of multiple methods including qualitative and quantitative techniques for data collection and analysis.

Products: The project's creation of innovative tools using varied and integrated media and materials should enable individuals with disabilities to achieve the outcomes expected of all students, such as independence, productivity, and a quality of life that promotes equity in opportunity. The process will also enable the learner across environments by fostering the creation of state-of-the-art instructional environments both within and outside school settings.

Formulate and Conduct Research Around Improving Education and Technology Related Services at the Local Level

GRANT NUMBER: H180U50026

Principal Investigators: **Kiernan, William/**
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617-735-6506

Beginning Date: 10/1/95
Ending Date: 9/30/98

Purpose: The project will examine the impact of comprehensive district-wide capacity-building initiatives on the utilization of assistive technology across learner environments.

Method: Technical assistance in the development of adoption of policies (including a funding plan) supporting the utilization of technology in the classroom will be provided. Training will be given to school personnel and family members relating to available assistive technology funding options. Training and technical assistance will also be provided to teachers, focusing on the utilization of instructional software in the classroom. District Assistive Technology Utilization Teams will receive assistance in heightening community awareness of the potential of assistive technology, and students and family members will receive training regarding low cost assistive technology for use in the home, workplace, and community. Project collaborators will join with three local education agencies and one regional educational collaborative to participate in the first two years of the project. In each participating LEA or REC, a series of behavioral observations of five target students will be conducted, during which time data will be collected on the students' level of active participation in integrated settings. Project activities in the third year will be primarily devoted to measuring outcomes and conducting dissemination activities.

Products: Progress reports will be developed and disseminated to the project PAC, the state Department of Education, and other interested parties. Data-based and descriptive articles will be written and submitted to appropriate journals, and project staff will be prepared to present results at various national, regional, and state conferences.

Project Alive! Acquiring Literacy Through Interactive Video Education

GRANT NUMBER: H180H20034

Principal Investigator: **King, Cynthia**
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800 Florida Avenue, N.E.
Washington, DC 20002-3625
202-651-5201

Beginning Date: 1/1/93
Ending Date: 12/31/96

Purpose: The project will demonstrate and evaluate uses of interactive video as a means of increasing literacy development and interest among deaf and hard-of-hearing students.

Method: The project will use Thurston's START model, which indicates that Support, Time, Access, Resources and Training are all necessary for the successful implementation of innovation in the classroom. An additional teacher empowerment model will emphasize extensive teacher control of the implementation process and extensive teacher involvement in decision making. Four programs - two residential schools and two public school programs - will participate in the 3-year project. Each program will select a team of teachers and administrators for participation, and participants will be involved in all phases of the project, including preparation, training, curriculum development, support, implementation, institutionalization, dissemination, and evaluation. Year One will focus on uses of captioned movies available on existing videodiscs. Year Two will expand uses of interactive video to materials developed by teachers and students in project sites. Year Three will focus on shifting from the external to internal support for interactive video, on conducting a summative evaluation, and disseminating results at regional and national levels.

Products: Outcomes will include: (1) a data based, empirical description of the process by which interactive video was implemented in programs for deaf and hard-of-hearing students; (2) descriptions of contextual variables and student characteristics that may influence the success of implementing interactive video in the classroom; (3) a model of successful implementation based on these descriptions; (4) curricular materials for interactive video instruction; and (5) a video record of the implementation process, potentially for future use in training others for replication.

Captioning Instructional Videos to Improve Literacy

GRANT NUMBER: H180G60022

Principal Investigator: **Kirkland, Eric**
National Captioning Institute
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Vienna, VA 22182
703-917-7623

Beginning Date: 10/1/96
Ending Date: 9/30/99

Purpose: To investigate the benefits of captioned videos for students with special educational needs in Grades 1-3.

Method: This project will implement a longitudinal study commencing with Grade 1 the first year and continuing through Grades 2 and 3 in subsequent years. At each grade level, a set of 30 videos will be prepared, with all classes at each grade level having their own sets of videos. In addition, each school will be provided with a set of videos to be shown in class as part of the language arts curriculum. Each student will be encouraged to take home one video per week to be viewed as a "talking storybook" or "video bedtime story." Activities and games will be developed to enable parents to participate in video viewing, and an exhibit will be set up at meetings of the parent teacher organization to reinforce the need for parent involvement. Throughout the three project years, staff will meet with various school personnel to provide training on the use of the videos, as well as log forms and other tools necessary to support data collection. Ongoing observations will provide baseline information and longitudinal data on the use of and attitudes toward instructional television among student and teacher participants. The participating school will be in a rural community serving many socioeconomically disadvantaged families, so it is hoped that many parents will also be able to improve their literacy through usage of the captioned videotapes.

Products: This project will result in 90 captioned videos with accompanying activities and assessments for integrating them into early intervention programs for Grades 1-3. Project staff will also publicize the project through articles in professional journals and presentations at national conferences.

Integrating Captioning with College Preparatory Courses for Students with Special Educational Needs

GRANT NUMBER: H180G50022

Principal Investigator: **Kirkland, Eric**
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703-917-7623

Beginning Date: 10/1/95
Ending Date: 9/30/98

Purpose: This project will investigate the effect of captioned instructional television for students in special education and students with limited-English-proficiency enrolled in college preparatory classes.

Method: Using a multiple phase research strategy, the study will address the following questions: (1) Does captioning provide cognitive benefits for college age students with learning disabilities or students with limited- English-proficiency? (2) Does captioning provide affective benefits for college age students with learning disabilities or students with limited-English-proficiency? (3) Is there a differential benefit (either cognitive or affective) for captioning for students with learning disabilities as compared to students with limited- English-proficiency? and (4) What are the optimal conditions for implementing captioning in a community college setting? A minimum of two intact classes (one focusing on students with learning disabilities, one focusing on students with limited-English-proficiency) will be selected each year for full qualitative and quantitative data collection at Miami-Dade Community College.

Products: In addition to the knowledge and understanding gained from the data collection and analysis effort, the project will result in several products including captioned videos with accompanying guidelines for integrating them into college preparatory courses and classroom vignettes of students and instructors as they adapt to captioning technology.

PROJECT WRITE: Writing and Reading Instruction Through Technology, Educational Media and Materials

GRANT NUMBER: H180G20016

Principal Investigator: **Koppenhaver, David**
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919-966-7486

Beginning Date: 1/1/93
Ending Date: 12/31/96

Purpose: This project will focus on: (1) investigating the availability, quality, use, and effectiveness of technology, educational media, and materials (TEMM) in current instructional settings for children with developmental disabilities; (2) conducting surveys and comparative case studies to test the generalizability of Phase I studies; and (3) conducting a series of intervention studies designed to advance the availability, quality, use, and effectiveness of TEMM based upon the findings of Phase I and II studies.

Method: Subjects will be children with developmental disabilities, ages 3-12, their families, and the professionals who address their literacy-learning needs in preschool and school settings. Three typical settings in which preschoolers are educated and three typical settings in which elementary school-aged children educated will serve as principal research sites. A socio-communicative model of language and literacy use and a comprehensive model of the study of classroom teaching will serve as the frameworks driving the research. Qualitative and survey research methods will be the primary means of conducting Phase I and II research into the state of the art in the use of TEMM to promote literacy. Experimental designs will be employed in Phase III intervention studies.

Products: Research findings will be shared through multiple means including: publication in peer-reviewed journals, publication in newsletters and journals for families of children with developmental disabilities and the professionals who serve them; and conference presentations, particularly the Carolina Literacy Symposium.

Enhancing the Writing Skills of Students with Learning Disabilities Through Technology: An Investigation of the Effects of Text Entry Tools, Editing Tools, and Speech Synthesis

GRANT NUMBER: H180G40073

Principal Investigator: **Lewis, Rena**
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619-594-5692

Beginning Date: 8/15/94
Ending Date: 8/14/97

Purpose: This project will study the effectiveness of one set of technologies (word processing tools) in improving the literacy skills of students with learning disabilities.

Method: Three separate pretest-posttest control group studies are planned to investigate one type of word processing tool each by comparing the performance of experimental groups, a control group of students with learning disabilities not receiving treatment, and a comparison group of general education students. In Year 1, four text entry strategies will be compared, including keyboarding instruction, alternative keyboards, word prediction, and word prediction with speech synthesis. The Year 2 study will contrast spelling and grammar aids, each with and without speech synthesis. The Year 3 study will investigate speech synthesis under several different conditions. A total of 640 students will serve as subjects, half with and half without learning disabilities. Data will be collected via writing samples, speed probes, and student observations and interviews. Group differences will be tested via analysis of covariance.

Products: Results will be reported at national conferences and in professional journals targeting researchers, teacher trainers, and practitioners in general and special education.

Project LITT (Literacy Instruction Through Technology): Enhancing the Reading Skills of Students with Learning Disabilities through Hypermedia-Based Children's Literature

GRANT NUMBER: H180G60018

Principal Investigator: **Lewis, Rena**
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619-594-5692

Beginning Date: 9/1/96
Ending Date: 8/31/99

Purpose: To study the effectiveness of hypermedia-based children's literature in improving the literacy skills of students with learning disabilities.

Method: Five interrelated studies will be conducted. These studies will focus on characteristics of hypermedia-based children's literature in relation to students' learning needs, learning strategies employed by students with learning disabilities in interaction with this type of software, types of instructional supports needed to maximize reading gains students receive from this software, the effectiveness of the software in improving reading skills of children with learning disabilities, and the effectiveness of bilingual versions of this software in improving both English and Spanish reading skills of bilingual students with learning disabilities. Research designs and methodologies will vary from study to study depending on the questions under investigation. Data will be collected on such dependent variables as attitude toward reading and reading skills in the areas of phonological awareness, decoding, word recognition, and comprehension.

Products: Project results will be reported at national conferences; in professional journals; and through other means to assure dissemination to researchers, teacher trainers, families of students with learning disabilities, and practitioners in general, special, and bilingual education. Findings have the potential to alter the ways in which teachers teach literacy skills, and, thereby, the extent to which adults with learning disabilities are able to participate in society as literate citizens.

Preventing Early Reading Failure by Enhancing Classroom Technologies: An Analysis of Peer-Assisted Learning Strategies, Computer-Assisted Instruction & Continuous Progress Monitoring in Primary General Education Classrooms

GRANT NUMBER: H180G60004

Principal Investigator: **Mathes, Patricia**
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Beginning Date: 8/15/96
Ending Date: 8/14/99

Purpose: To restructure primary grade reading instruction to be more responsive to the needs of students with learning disabilities or students at risk for special education referral, while simultaneously enhancing the learning of all students in the classroom.

Method: In Year One staff will experimentally examine the effectiveness and feasibility of Peer-Assisted Learning Strategies (PALS) designed for first-grade students with and without computer-assisted instruction in phonological awareness. Participants will include 45 teachers and 225 children (135 who are at risk for special education referral or already labeled as having learning disabilities, 45 average-achieving, and 45 high achieving). This examination will continue in Year Two, but in this year staff will monitor how children are responding to PALS over time, using Curriculum-Based Measurement computer technology to help teachers identify students requiring additional help. Year Two will feature the same teachers and an identical student sample. In Year Three the project will focus on second grade, examining the impact of incorporating decoding skills instruction with older primary students. Second-grade PALS will be compared to the previously validated PALS procedures developed at Peabody College of Vanderbilt University. Additionally, staff will replicate efforts to have teachers make data-based instructional modifications for students making less than desired progress using computerized CBM technology. Participants in Year Three will include 40 second-grade teachers and 240 children (120 at risk for referral, 40 already labeled as having learning disabilities, 40 high achieving, and 40 average achieving). Students' social acceptance and feelings about their involvement in the interventions will be studied. Teachers will be surveyed concerning students' academic performance, class deportment and social behavior, and attitudes toward students with disabilities and reintegration.

Preventing Early Reading Failure by Enhancing Classroom Technologies: An Analysis of Peer-Assisted Learning Strategies, Computer-Assisted Instruction & Continuous Progress Monitoring in Primary General Education Classrooms (cont.)

Products: Manuscripts describing this project will be submitted to journals on special education, regular education, and school psychology, and conference presentations will be made to similar scholarly audiences. A training manual will be developed for dissemination, describing project procedures as well as strategies for facilitating implementation of these procedures. Through the School of Motion Picture, Television, and Recording Arts at Florida State University, a videotape illustrating critical features of the three PALS versions will be developed and used with conference presentations and as an adjunct to the manual.

Effects of Individualized Closed-Captioned Video Prompt Rate on Reading Skills of Disabled and Nondisabled Elementary Students in Inclusion and Noninclusion Classrooms

GRANT NUMBER: H180E30034

Principal Investigator: **Meyer, Martha**
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Beginning Date: 9/1/93
Ending Date: 11/30/96

Purpose: This project will examine and demonstrate how individualizing the closed-caption prompt rate, manipulated to match each student's reading level and comprehension reading rate, can be a successful technological reading approach.

Method: A cluster equivalent materials design comprised of two groups of 4th-grade students mildly disabled and nondisabled in two classroom environments (inclusive and noninclusive) will participate in a limited pilot study and a full-scale study for 1 academic year. These groups of students will receive alternate treatments of: (1) digital video interactive materials with individualized prompt rate; and (2) closed-captioned videotapes with no individualization of prompt rate. A demonstration of this technology in both inclusive and noninclusive classrooms will be conducted during Year 3 of the grant. Appropriate data analyses will be applied, results graphed, interpreted, reported, and disseminated.

Products: Results from this project will give educators new directions in improving reading level, comprehension, and retention skills in elementary students. In addition, hypermedia technology will be demonstrated and training offered for interested educators and policy makers at school-based demonstration sites. Videotape as well as CD-ROM products will be produced for
a national educational market for implementation and replication.

Beyond Assistive Technology: Policy, Curriculum and Technology for Inclusion

GRANT NUMBER: H180U50035

Principal Investigators: **Pisha, Bart/**
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CAST, Inc.
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Beginning Date: 9/1/95
Ending Date: 9/1/98

Purpose: This project will study the efficacy of a technology-based literacy curriculum as an inclusive educational tool for teachers, parents, and children with disabilities.

Method: The multimedia technology literacy curriculum to be used, WiggleWorks, is inclusive and features supports for students with disabilities. Six elementary schools (three urban and three rural) will participate in the study. Two sites will receive three high level Macintosh computers per classroom and copies of WiggleWorks, as well as intensive professional development in practices which best foster technology use and inclusion in literacy education. Technology to foster parent involvement in the literacy development of their children will also be provided. Two more schools will receive the same technology and software, but no training on the use of that technology to develop literacy in inclusive classrooms. The remaining two schools will participate as observation and control sites. At these schools observations will be made regarding the ways in which existing technology is used to foster literacy and full inclusion.

Products: Study results will be disseminated via print and accessible multimedia CD ROM to individuals with disabilities, parents, teachers, administrators, policy makers, and publishers. The collaborative team will also generate recommendations for changes in WiggleWorks while it undergoes revision. The study will also yield recommended guidelines for the design and production of inclusive curricula for curriculum developers and publishers.

An Analysis of Organizational Support and Professional Development Strategies Designed to Enhance Instruction and Improve Outcomes for Students with Disabilities

GRANT NUMBER: H180A40030

Principal Investigator: **Rieth, Herbert**
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Beginning Date: 9/1/94
Ending Date: 8/31/97

Purpose: The project will analyze a range of multilevel professional delivery systems training teachers of students with disabilities to incorporate multimedia technology into contextualized learning environments, and to develop, field test, and disseminate multimedia training materials.

Method: During the first of 3 project years, the project will work closely with special education teachers and principals (N=30) to identify, implement, and analyze the efficacy of three organizational support and professional development activities. The first set of activities will entail utilizing materials developed by Peabody researchers between August and December to train special education (N=15) and building administrators (N=15). Second, a series of studies will be conducted between January and June to examine the efficacy of models of staff development coupled with different organizational support levels. Third, training materials based on research outcomes will be developed that describe strategies for staff development training programs. These activities will be the foundation for materials training teachers to modify instructional environments to produce improved teachers and students behavioral outcomes. During the second project year, the project will focus on: (1) formatively and summatively evaluating training packages with groups of local and national special education teachers; and (2) analyzing the efficacy of staff development and instructional intervention strategies. In the third project year, all training materials will be summatively evaluated and disseminated nationally.

Products: Staff will develop two sets of multimedia training materials. The first set will be designed to enable teachers to effectively use anchored instruction with multimedia technology to instruct students with disabilities. The second will describe strategies to organize, deliver, and evaluate building-based staff development training activities.

A National Perspective on Special Educators' Use of Technology, Media, and Materials to Promote Literacy

GRANT NUMBER: H180G50013

Principal Investigator: **Robey, Elaine**
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301-572-0251

Beginning Date: 10/1/95
Ending Date: 9/30/98

Purpose: The project will conduct a nationwide study of the ways special educators use technology, media, and materials to promote literacy among children with disabilities.

Method: This study will seek to answer the following questions: (1) What is the state of practice in the use of technology to promote literacy for children with disabilities? (2) What are effective and innovative strategies for using technology to promote literacy? and (3) What kinds of information do special educators use to determine which technology to use to promote literacy and when to use them? A research design using Computer Assisted Telephone Interview (CATI) technology and case studies will solicit information from special education teachers, administrators, and higher education faculty about what technologies they use and how; which technologies they feel are effective in promoting literacy; and what sources of information they use to learn about such technologies. The overall CATI survey will reach 2,200 educators nationwide. Case studies of seven school districts which use technology to promote literacy in special education programs will provide real-world examples to deepen descriptive statistical data gathered through the survey.

Products: Results of the survey and case studies will be translated into three informational products: a research report, a photo essay, and a computer-based presentation. Products will be distributed to the original survey participants, who will again be interviewed through CATI to find out if they read the information, what they thought of it, and how they might have used it.

Development and Evaluation of a Computer-Aided Speech-to-Print Transcription System

GRANT NUMBER: H180J30011

Principal Investigator: **Stinson, Michael**
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716-475-6596

Beginning Date: 12/1/93
Ending Date: 11/30/96

Purpose: This project will develop and evaluate a real-time speech-to-print transcription system that can be employed as a support system for deaf students.

Method: The system will use a hearing transcriber and a computer program to convert speech into print as the words are being spoken. The system will provide a real-time text display that the student can read to understand what is being said in a classroom. In addition, the text file stored in the computer can be examined by students, tutors and instructors by reading the computer monitor or a hard-copy printout. The system will use a laptop computer and common word processing software, as well as procedures for "compressing" or reducing the text when speech becomes rapid. Following refinement of the basic system, the package will be evaluated in the classroom through: (1) evaluation of technical performance, (2) questionnaire of users, (3) in-depth interviews, (4) study of operators' use of the system, and (5) study of the system in implementation at the secondary level. Operators and other personnel will be trained in key procedures, and operator training procedures will be refined and evaluated.

Products: This project will produce a field-tested and validated system to create computerized text files of classroom speech, which will not only serve the needs of deaf and hearing-impaired students, but also create documentation for many other uses. The system also has potential to facilitate the communication of deaf persons in work settings and could be useful for other groups of students, such as students with learning disabilities.

Implementing a Computer-Aided Speech-to-Print Transcription System as a Support Service for Deaf and Hard of Hearing Students

GRANT NUMBER: H180U60004

Principal Investigator: **Stinson, Michael**
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Beginning Date: 10/1/96
Ending Date: 9/30/99

Purpose: To develop knowledge, procedures, and guidelines for effectively implementing the C-Print system as a support service for deaf and hard of hearing high school and college students.

Method: A real-time speech-to-print transcription system will be implemented as a support system for deaf students. This system employs a hearing transcriber and a computer program to convert speech into print as the words are being spoken. The system uses a laptop computer and word processing software with a computerized abbreviation system to reduce keystrokes, and will provide a real-time text display for students to use to understand what is being said and done in the classroom. In addition, the text file thus stored will be available for examination by students, tutors, and instructors after class. The C-Print system will be implemented in four settings where students are mainstreamed: (a) a large, centralized high school regional program; (b) a program which provides itinerant teachers and support services to deaf and hard of hearing students attending local high schools; the college program at the National Technical Institute for the Deaf which has a large number of students and extensive support services; and (d) a group of college programs with few deaf and hard of hearing students and limited support services. Staff will collect qualitative and quantitative data to specify exactly how students use this technology and the extent to which the technology is beneficial. The project will also collect objective data regarding comprehension and retention of lecture material, and the data are expected to indicate the characteristics of students and conditions under which C-Print is most beneficial. The professional development component of the project will develop effective procedures for training C-Print operators to work in a variety of settings, create clearly specified roles for them, and share this knowledge with special education and regular classroom teachers.

Products: Information concerning hardware and software, the abbreviation system, research and evaluation efforts, operator use in the classroom, and the utility of the system for deaf and hard of hearing students at the secondary and postsecondary levels will be disseminated via workshops, conference presentations, journals, project materials, a video documentary, and demonstrations of the system.

Teaching Workplace Literacy

GRANT NUMBER: H180G40079

Principal Investigator: **Woodward, John**
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Beginning Date: 1/1/95
Ending Date: 12/31/97

Purpose: This project will articulate how interactive instruction can be used to foster higher order thinking and how cooperative learning, specifically the group investigation method, will promote interpersonal skills development for secondary students with learning disabilities.

Method: The first study will examine the effects of the interactive instructional model on higher order thinking in mathematics. Relying on a mastery of basic mathematical concepts, students will use elementary spreadsheet skills to calculate averages, determine trends in data, and ask "what if" questions. The second study will build on Study 1 by linking math problem solving to expository writing. Again, the interactive instructional model will be used. The third study will shift focus from higher order thinking to interpersonal skill development, examining the integration of mathematical problem solving and expository writing in the context of cooperative learning. The final study will be an evaluation of our interactive instruction and cooperative learning practices to teaching workplace literacy at Phase 1 of secondary schools. This study will occur in mainstreamed classroom settings and will closely examine how the systematic research conducted earlier in experimental conditions translates into actual practice.

Products: The main product of this project will be the Integrated Learning Curriculum, containing exercises for integrating mathematical problem solving, expository writing, and strategies for structuring cooperative learning groups for this kind of instruction. This material will be designed explicitly for practitioners and inservice courses. Instructional vignettes will also be recorded on videotape for further dissemination.

Pathways for Learning

GRANT NUMBER: H180A40069

Principal Investigator: **Zorfass, Judith**
Education Development Center, Inc.
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617-969-7100

Beginning Date: 6/1/94
Ending Date: 5/31/97

Purpose: This project will develop, demonstrate, evaluate, and disseminate effective organizational support and professional development strategies that promote the effective use of technology, media, and materials (TMM) to improve learning outcomes for students with disabilities in grades 1-8.

Method: Within the project approach, regular and special education teachers across grade levels (e.g., grades 1-3, 4-6, or 6-8) will form a Pathway Team. As a team they will design, implement, and evaluate curricula that span their grade levels, focus on outcomes that revolve around building deep understanding and communication, and integrate a variety of TMM applications to meet student needs. A designated group of students, including those with cognitive, physical, sensory, and emotional disabilities will be included in the pathways. As a group, these students will travel from one teacher on a Pathway Team to another through successive grades, provided with the technology they need to make all transitions smooth. Over the 3 project years, staff will carry out a formative evaluation to gather evidence about the success of the components, problems that arise, and repertoires of solutions devised. Staff members will collect all data through observations of meetings and classroom instruction, interviews, and collection of work samples, as well as videotaping the progress of selected students. Intervention efforts will combine organizational support and professional development, consisting of three structures to promote collaborative work among stakeholders: a district-wide Coordinating Committee, School Management Groups, and school-based Pathway Teams of teachers. Electronic networks, video conferences, and print materials will support the work of these three structures.

Products: As a result of this project, district administrators will develop an understanding of cooperation between stakeholders, a cadre of facilitators will be created that can promote change throughout school districts, and regular and special education teachers will more easily work together in collaborative Pathway Teams.

Project ASSIST: All Students in Supported Inquiry-Based Science with Technology

GRANT NUMBER: H180U60008

Principal Investigator: **Zorfass, Judith**
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617-969-7100

Beginning Date: 10/1/96
Ending Date: 9/30/99

Purpose: To develop, implement, evaluate, and disseminate a model that will have a national impact on the successful inclusion of students with diverse disabilities in inquiry-based science classrooms that integrate technology, media, and materials.

Method: Staff will work intensively with one demonstration site in the Cambridge, Massachusetts Public Schools. Teachers will be trained in the action research model to be used, and a feedback system will be initiated to support this model. Staff will develop embedded assessments for two Supported Inquiry Science (SIS) units for each grade level, and their reliability and validity will be tested at the demonstration school. Teachers will keep results of embedded assessments in their six focal students' science portfolios throughout the project, and the project's impact will also be assessed through interviews and surveys. Additional schools will be added in Year 2 and Year 3, following the same basic model as was used in Year One.

Products: Staff will develop and refine an ASSIST manual, featuring project guidelines, case studies, sample curriculum materials, and resources. Awareness and readiness to replicate the model will be built through four other large-scale reform projects housed at EDC. Staff will also share project descriptions and materials through the World Wide Web, journal articles, written publications, and conference presentations.

Practice Improvement Center on the Effective and Efficient Use of Technology, Media, and Materials in the Provision of Education and Related Services to Children and Youth with Disabilities

GRANT NUMBER: H180N20013

Principal Investigator: **Zorfass, Judith**
Education Development Center, Inc.
School and Society Programs
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Newton, MA 02160
617-969-7100

Beginning Date: 10/1/92
Ending Date: 9/30/97

Purpose: This project has two goals: (1) to collect, analyze, validate, and extend extant research regarding effective and efficient use of TMM to improve outcomes for children and youth with disabilities; and (2) to provide access to research and promote its used by practitioners so that they may better meet the educational and related service needs of children and youth with disabilities.

Method: A Delphi method will be employed with key stakeholders from each of several disability groups to identify priorities for that group. Based on these findings, staff will select topics for review and dissemination and revise the strategic plan accordingly. For each topic identified, research leaders, with input from others in their area of expertise, will synthesize extant research literature. Based on the strength and consistency of research findings, project staff will carry out one or more follow-up activities to validate and extend the findings. Among follow-up methods to be employed will be telephone surveys, focus group sessions, on-site field visits, video conferences with facilitated discussion at designated download sites, and commissioned research that extends ongoing research efforts.

Products: Formats for dissemination efforts will include: (1) research briefs; (2) training manuals; (3) videotapes with accompanying print materials; (4) an on-line multimedia magazine containing text, still pictures, sound, and video; (5) video conferences broadcast via PBS stations across the country; (6) tapes of teleconferences with accompanying facilitator's guides; and (7) electronic bulletin board discussions.

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